Water Chemistry Data from the North and South Basins of Lake 302 in the Experimental Lakes Area, Northwestern Ontario, 1968 to 1983

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by

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ABSTRACT

Linsey, G.A., J. Braund, M.P. Stainton, and J. Prokopowich. 1985. Water chemistry data from the north and south basins of Lake 302 in the Experimental Lakes Area, northwestern Ontario, 1968 to 1983. Can. Data Rep. Fish. Aquat. Sci. 509: iv + 307 p.

Water samples taken from Lake 302 of the Experimental Lakes Area were analyzed for up to 28 chemical and physical parameters during the period from 1968 to 1983. Depth profiles for each parameter were determined approximately monthly while epilimnion and outflow samples were analyzed weekly during the open water season. Beginning in 1972, profiles were obtained approximately monthly under winter ice cover.

Key words: Water chemistry; chemical composition; lake acidification; eutrophication; limnology.

RESUME

Linsey, G.A., J. Braund, M.P. Stainton, and J. Prokopowich. 1985. Water chemistry data from the north and south basins of Lake 302 in the Experimental Lakes Area, northwestern Ontario, 1968 to 1983. Can. Data Rep. Fish. Aquat. Sci. 509: iv + 307 p.

Nous avons pris et analysé des échantillons d'eau du lac 302, Région des Lacs Expérimentaux, en tenant compte de 28 paramètres chimiques et physiques au cours de la période allant de l'année 1968 à l'année 1983. Les prélèvements en profondeur pour chaque paramètre furent faits et analysés environ tous les mois; les échantillons de l'épilimnion et du débit furent prélevés et analysés toutes les semaines durant la saison d'eau libre. À partir de 1972, des profils furent obtenus à peu près tous les mois pour les échantillons prélevés sous la glace hivernale.

Mots clés: hydrochimie; composition chimique; acidification de lac; eutrophisation; limnologie.

INTRODUCTION

Since its inception in 1966 (Johnson and Vallentyne 1971), the Experimental Lakes Area (ELA) of northwestern Ontario has provided sites where a host of unique aquatic ecosystem experiments could be carried out. These have included whole lake fertilization and acidification projects, some of which have been ongoing for many years. As well as experimental manipulation, the drainage basins in the area have been subjected to natural perturbations in the form of forest fires and a severe windstorm, affording the opportunity to study their effects on the chemistry and hydrology of otherwise unperturbed watersheds (Schindler et al. 1980a).

The establishment of on-site analytical laboratory facilities at the beginning of the project permitted chemical analysis for unstable substances such as nitrate, ammonia, phosphorus, ferrous iron, sulfide and dissolved inorganic carbon to be carried out within hours of sample collection on a year-round basis. As a result, extensive water chemistry data have been compiled for a number of ELA lakes for periods of up to 16 years. Summaries of early portions of these data have been presented by Armstrong and Schindler (1971) and Prokopowich (1979). As well, data appear for a few chemical species for selected lakes in numerous individual publications (for example: Schindler 1971; Schindler et al. 1973, 1980a,b; Hesslein 1980).

The purpose of this report is to document all of the water chemistry data routinely collected over the years for ELA Lake 302 which consists of two basins of approximately equal area and depth separated by two narrow, shallow channels (see Brunskill and Schindler (1971) for bathymetric details). From the geographical orientation of the lake, the basins have been designated as "302N" (north basin) and "302S" (south basin). Water samples for chemical analysis have been obtained from both basins since 1968.

From 1972 to 1978, an experiment was carried out in 302N to determine the effects of nutrient injections into the hypolimnion of a thermally stratified lake (Schindler et al. 1980c). During this period, ammonium, carbon and phosphorus were added to the basin at a depth of 9 m from the surface (see Schindler et al. (1980c) and Cruikshank (1984b) for details of amounts and methods of chemical additions). In July, 1974, a vinyl curtain was installed across the narrow channels to isolate the two basins. This barrier remained in place until June, 1980. In June, 1981, a new curtain was deployed but no chemical additions were made to either basin. In 1982, a whole lake acidification experiment was initiated in Lake 302. This experiment was designed to isolate the individual effects of nitric and sulfuric acids on the biogeochemical cycles in a lake. To accomplish this, controlled amounts of nitric acid have been added to 302N and sulfuric acid to 302S. The amount of each acid to be added is calculated so that an equivalent amount of hydrogen ion is introduced into each basin and is based upon reaching and maintaining a predetermined pH for the epilimnion water of the 302S basin. During the first year of acidification (1982), our goal was to add only enough acid to decrease the alkalinity of the epilimnion water of 302S to near zero. The target pH for 302S in 1983 and 1984 was 5.75 and 5.50 respectively. The amounts of acid added to each basin are presented by Cruikshank (1984b).

METHODS

Details of the analytical methods employed up to the end of 1976 have been outlined in chronological order by Prokopowich (1979). The same format has been adopted to expand this account to include techniques in use to the end of 1983 (Tables 1 and 2).

Samples labelled "EPI" (epilimnion) are usually obtained at a depth of 1 m below the lake's surface. Occasionally, shallower samples have been substituted but caution has been exercised to exclude any surface film or debris. Water obtained from the outflow of the lake is labelled "OF". Dates are expressed as day numbers on the Julian calendar. The appendices have been arranged to contain the water chemistry data for individual calendar years.

Temperature profiles measured at much smaller depth intervals than those reported here and corresponding to the dates of chemistry sampling are presented by Cruikshank (1984a).

ACKNOWLEDGMENTS

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The numbers in brackets correspond to the reference numbers in Table 2.

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Table 1. Analytical methods employed from 1977 to 1983. The numbers are keyed to the brief method descriptions in Table 2 of this paper and in Prokopowich (1979).

Analysis	1977	1978	1979	1980	1981	1982	1983
NH_3-N	1	1	1	1	1,1a	1a	1a
NO_2-N	2	2	2	2	2,2a	2a	2a
NO_3-N	3	3	3	3	3,3a	3a	3a
TDN	4c	4c	4c	4c	4c	4c	4c
Susp N	5b	5b	5b	5b	5b	5b	5b
TDP	7a	7a	7a	7a	7a	7a	7a
Susp P	8	8	8	8	8	8	8
DIC	9d	9d	9d	9d,9e	9e	9e	9e
DOC	10b	10b	10b	10b	10b	10b	10b
Susp C	11	11	11	11	11	11	11
Cl	13c	13c	13c	13c	13c	13c	13c
SO_4	14b	14b	14b	14b	14b	14b	14b
H_2S-S	15	15	15	15	15	15	15
SRSi	16	16	16	16	16	16	16
Na,K,Mg,Ca,Mn,Fe	17	17	17	17	17	17	17
Fe^{2+}, Fe^{3+}	19	19	19	19	19	19	19
pH	20	20	20	20,20a	20a	20a	20a
Temperature	21	21	21	21	21	21	21
Conductivity @25°C	22	22	22	22	22	22	22
Oxygen	23	23	23	23	23	23	23
Chlorophyll-*a*	24b	24b	24b	24b, 24c	24c	24c	24c
Colour	25	25	25	25	25	25	25
Alkalinity	26a	26a	26a	26a,26b	26b	26b	26b

Table 2. A brief description of the analytical methods used from 1977 to 1983 which are not included in Prokopowich (1979).

Analysis	Method Number (from Table 1)	Description	Reference numbers
NH_3-N	1a	- automated colourimetric indophenol blue method with nitroprusside catalyst - filtered samples - started July, 1981	18
NO_2-N	2a	- automated colourimetric azo dye method - filtered samples - started July, 1981	17
NO_3-N	3a	- as in 2a but after reduction to nitrite with a copper-cadmium couple	17
DIC	9e	- acidification and on-stream gas stripping followed by infrared absorption analysis - started in July, 1980	5, 16
pH	20a	- sample and electrode in closed container to prevent atmospheric CO_2 exchange - unstirred - started July, 1980	5
Chlorophyll-*a*	24c	- static (20 hour) methanol extraction of samples on glass-fibre filters followed by fluorometry - uncorrected for phaeophytin - started in May, 1980	M.P. Stainton (unpublished)
Alkalinity	26a	- manual potentiometric acid titration using a Gran extrapolation to determine acid equivalence point	6, 7
	26b	- automated potentiometric acid titration using the first derivative to determine the equivalence point - Gran calculations performed on occasional samples - known amounts of bicarbonate added to low alkalinity samples prior to titration allowing an estimate of "negative" alkalinity - started May, 1980	

Appendix 1

Lake 302 north basin 1968 water chemistry data

LAKE 302N Temp (C) 1968

DEPTH(m)	DAY # 165	188	297
EPI	17.00	18.80	
3	16.40	18.30	
4	14.70	17.30	
5			12.00
6	9.10	9.60	
8			12.00
13	5.20	5.40	

LAKE 302N NO3-N (ug/L) 1968

DEPTH(m)	DAY # 165	188	297
EPI	1		
3			
4	1		
5			1
6	34		
8			1
13	3		

LAKE 302N Cond (uS/cm) 1968

DEPTH(m)	DAY # 165	188	297
EPI	14	16	
3			
4	16	16	
5			
6	25	15	
8			
13			

LAKE 302N Na (mg/L) 1968

DEPTH(m)	DAY # 165	188	297
EPI	.50	.50	
3			
4	.49	.60	
5			.46
6	1.42	.56	
8			.74
13			

LAKE 302N O2 (mg/L) 1968

DEPTH(m)	DAY # 165	188	297
EPI	9.60	8.40	
3	9.60	8.40	
4			
5			
6			
8			9.61
13		.10	

LAKE 302N K (mg/L) 1968

DEPTH(m)	DAY # 165	188	297
EPI	.32	.36	
3			
4	.32	.36	
5			.22
6	1.19	.36	
8			.30
13			

LAKE 302N Ca (mg/l) 1968

DEPTH(m)	DAY #		
	165	198	297
EPI	1.34	1.53	
3			
4	1.50	1.43	
5			1.07
6	2.00	1.53	
8			2.98
13			

LAKE 302N Mg (mg/L) 1968

DEPTH(m)	DAY #		
	165	198	297
EPI	.96	.75	
3			
4	1.10	.77	
5			.44
6	1.24	.78	
8			1.73
13			

LAKE 302N Chl-a (ug/L) 1968

DEPTH(m)	DAY #		
	165	198	297
EPI			
3			
4			
5			2.6
6			
8			2.3
13	4.2	4.6	

Appendix 2

Lake 302 north basin 1969 water chemistry data

LAKE 302N Temp (C) 1969

DEPTH(m) DAY #

	154	217
EPI	12.50	21.90
5	12.00	16.80
10	6.00	6.80
13	5.80	6.60

LAKE 302N pH 1969

DEPTH(m) DAY #

	154	217
EPI	6.91	
5	6.67	
10		
13		

LAKE 302N O2 (mg/L) 1969

DEPTH(m) DAY #

	154	217
EPI	9.70	8.30
5	9.70	8.70
10	8.20	.90
13		.01

LAKE 302N NO3-N (ug/L) 1969

DEPTH(m) DAY #

	154	217
EPI	7	2
5	7	2
10	67	25
13	86	4

LAKE 302N Temp (C) 1969

DEPTH(m)	DAY # 154	217
EPI	12.50	21.90
5	12.00	16.80
10	6.00	6.80
13	5.80	6.60

LAKE 302N pH 1969

DEPTH(m)	DAY # 154	217
EPI	6.91	
5	6.67	
10		
13		

LAKE 302N O2 (mg/L) 1969

DEPTH(m)	DAY # 154	217
EPI	9.70	8.30
5	9.70	8.70
10	4.20	.90
13		.01

LAKE 302N NO3-N (ug/L) 1969

DEPTH(m)	DAY # 154	217
EPI	7	2
5	7	2
10	67	25
13	46	4

LAKE 302N TDN (ug/L) 1969

DEPTH(m)	DAY # 154	217
EPI	164	117
5	147	91
10	144	85
13	128	123

LAKE 302N Susp N (ug/L) 1969

DEPTH(m)	DAY # 154	217
EPI	34	
5	34	
10	26	
13	30	

LAKE 302N TDP (ug/L) 1969

DEPTH(m)	DAY # 154	217
EPI	4	2
5	5	6
10	7	2
13	7	1

LAKE 302N Susp P (ug/L) 1969

DEPTH(m)	DAY # 154	217
EPI	5	
5	2	
10	2	
13	3	

LAKE 302W DIC (uM/L) 1969

DEPTH(m)	DAY # 154	217
EPI	68	
5	60	
10		
13		

LAKE 302W Na (mg/L) 1969

DEPTH(m)	DAY # 154	217
EPI	.62	.87
5	.63	.86
10	.63	.86
13	.63	.89

LAKE 302W K (mg/L) 1969

DEPTH(m)	DAY # 154	217
EPI	.33	.31
5	.35	.31
10	.35	.35
13	.37	.38

LAKE 302W Ca (mg/L) 1969

DEPTH(m)	DAY # 154	217
EPI	1.30	1.27
5	1.30	1.30
10	1.30	1.57
13	1.35	1.62

LAKE 302W Mg (mg/L) 1969

DEPTH(m)	DAY # 154	217
EPI	.53	.61
5	.53	.62
10	.54	.69
13	.56	.68

LAKE 302W SRSi (mg/L) 1969

DEPTH(m)	DAY # 154	217
EPI	.657	.701
5	.666	.719
10	.967	1.250
13	1.130	1.520

LAKE 302W Chl-a (ug/L) 1969

DEPTH(m)	DAY # 154	217
EPI	2.7	5.0
5	2.7	7.5
10	2.8	11.2
13	2.0	16.2

Appendix 3

Lake 302 north basin 1971 water chemistry data

LAKE 302N Temp (C) 1971

DEPTH(m)	DAY #						
	133	161	189	217	245	273	301
EPI	10.65	17.89	20.22	19.09	19.94	13.14	8.95
2	10.54	17.89	20.22	18.91	19.83	13.16	8.84
3	10.48	17.81	20.13	17.81	19.67	13.16	8.83
5	7.38	11.38	14.54	17.12	18.49	13.15	8.84
7	5.73	8.49	9.95	10.15	11.33	12.70	8.94
10	5.25	5.73	6.62	6.48	7.02	7.05	8.82
12	5.18	5.52	6.23	6.23	6.74	6.77	8.50
OF	10.80	17.90	21.80	19.15	19.50	12.49	7.00

LAKE 302N O2 (mg/L) 1971

DEPTH(m)	DAY #						
	133	161	189	217	245	273	301
EPI	11.66	9.39	8.10	8.90	8.49	10.05	9.77
2	11.72	9.65	8.29	8.97	8.51	10.00	9.49
3	11.78	9.25	8.40	8.96	8.47	10.00	9.60
5	11.69	10.90	8.51	8.81	8.41	9.67	9.68
7	10.57	10.35	10.59	10.49	9.75	10.03	9.48
10	9.35	7.82	3.94	.73	.87	.30	9.49
12	8.38	4.73	.68	.91	< .01	< .01	9.48
OF							

LAKE 302N Cond (uS/cm) 1971

DEPTH(m)	DAY #						
	133	161	189	217	245	273	301
EPI	17	17	17	17	17	18	18
2	18	18	17	17	16	19	18
3	17	17	17	17	18	18	18
5	18	17	17	17	17	18	18
7	27	21	17	17	17	18	18
10	13	19	19		20	24	19
12	18	19	21		29	34	19
OF	17	18	17	17	19	19	19

LAKE 302N NH3-N (ug/L) 1971

DEPTH(m)	DAY #						
	133	161	189	217	245	273	301
EPI	1	6	2	11	54	7	21
2	1	6	9	6	12	9	23
3	1	6	5	6	17	11	41
5	1	6	5	6	17	5	18
7	1	6	11	9	17	5	31
10	8	19	84	52	62	29	25
12	15	94	254	226	254	1	37
OF	1	9	9	10	10		10

LAKE 302N pH 1971

DEPTH(m)	DAY #						
	133	161	189	217	245	273	301
EPI	7.08	6.77	6.75	6.95	6.97	6.75	6.59
2	7.20	6.12	6.72	6.81	7.03	6.79	6.63
3	7.44	6.80	6.90	6.93	7.02	6.80	6.66
5	7.18	6.80	6.85	6.60	7.01	6.82	6.63
7	7.61	5.43	6.89	6.11	6.75	6.80	6.63
10	7.06	5.24	6.28		6.08	6.29	6.61
12	7.14	6.04	6.21		6.31	6.43	6.64
OF	6.74	6.39	6.67	6.56	6.54	6.70	6.61

LAKE 302N NO3-N (ug/L) 1971

DEPTH(m)	DAY #						
	133	161	189	217	245	273	301
EPI	68	1	2	11	2	1	2
2	96	1	1	11	3	1	2
3	68	1	2	12	4	1	2
5	71	15	1	9	3	1	1
7	116	25	1	10	3	1	1
10	107	49	46	7	5	1	1
12	76	56	37	8	21	1	2
OF	61	5	2	5	11		1

LAKE 302N TDN (ug/L) 1971

DEPTH(m)	DAY #						
	133	161	189	217	245	273	301
EPI	221	215	221	160	180	141	157
2	217	215	185	160	174	144	151
3	224	258	210	136	155	137	171
5	217	268	206	233	175	131	144
7	247	243	177	163	180	140	139
10	249	262	271	271	179	159	149
12	254	349	341	435	272	270	141
OF	215	265	244	226	205		165

LAKE 302N Susp N (ug/L) 1971

DEPTH(m)	DAY #						
	133	161	189	217	245	273	301
EPI	68	65	93	89	106	112	57
2	33	79	78	92	112	91	59
3	64	88	83	86	97	92	65
5	46	106	90	67		101	59
7	63	118	106	89	114	124	61
10	50	116	109	134	154	222	53
12	42	130	93	122	162	140	61
OF	64	179	91	84	760	149	59

LAKE 302N TDP (ug/L) 1971

DEPTH(m)	DAY #						
	133	161	189	217	245	273	301
EPI	9		3	3	4	5	6
2	11	3	5	2	3	6	5
3	11	3	4	1	5	5	3
5	9	1	5	1	4	4	5
7	6	3	6	2	6	2	6
10	9	3	5	3	8	7	3
12	9	8	9	5	6	7	5
OF	9	20	5	31	5	9	4

LAKE 302N Susp P (ug/L.) 1971

DEPTH(m) DAY #

	133	161	189	217	245	273	301
EPI	6	2	5	14	5	6	6
2	6	5	10	9	6	6	6
3	4	3	2	3	7	6	6
5	4	3	12	3	6	5	7
7	4	4	3	7	9	2	6
10	3	4		15	13	19	7
12	3	7	9	22	16	14	6
OF	3	8	14	6	62	13	6

LAKE 302N Susp C (ug/L.) 1971

DEPTH(m) DAY #

	133	161	189	217	245	273	301
EPI	700	750	890	1195	1150	1030	810
2	610	900	810	1150	1090	1000	800
3	750	790	630	1125	340	1090	850
5	640	740	760	1125	1090	1060	830
7	710	910	970	1160	1410	1040	930
10	640	940	860	1515	1590	1750	770
12	600	810	870	1605	1450	1130	930
OF	970	1720	860	1305	12790	1980	930

LAKE 302N DIC (uM/L.) 1971

DEPTH(m) DAY #

	133	161	189	217	245	273	301
EPI	165	71	80	93	69	104	102
2	115	76	78	80	70	106	107
3	184	79	79	77	67	106	106
5	157	70	73	79	69	103	116
7	196	89	80	95	106	106	112
10	251	219	334		330	515	106
12	240	324	799		494	573	104
OF	112	110	169	100	130	153	107

LAKE 302N Cl (mg/L.) 1971

DEPTH(m) DAY #

	133	161	189	217	245	273	301
EPI	.3	.2	.2		.6	.1	.2
2	.2	.1	.3		.1	.1	.2
3	.2	.1	.2		.1	.1	.2
5	.2	.1	.3	.7	.3	.2	.2
7	.2	.1	.2		.1	.1	.1
10	.2	.1	.2		.1	.2	.1
12	.3	.1	.2	.8	.1	.1	.2
OF	.2	.1	.3	.5	.1	.1	.2

LAKE 302N DOC (uM/L.) 1971

DEPTH(m) DAY #

	133	161	189	217	245	273	301
EPI		683	646	113	527	344	377
2	539	709	605	212		317	455
3	496	678	580	194	486		374
5	491	429	658	273		360	
7	482	650	514	290	520	427	
10	482	758	501		699	291	329
12	416	743	639	324	293	413	349
OF	488	754	575	171	465	377	373

LAKE 302N SO4 (mg/L.) 1971

DEPTH(m) DAY #

	133	161	189	217	245	273	301
EPI				2.9	2.6	2.5	2.7
2				3.0	2.7	2.8	2.7
3				2.7	2.7	2.7	2.7
5				2.6	2.5	2.7	2.9
7				2.7	2.7	2.5	2.7
10				2.6	2.5	2.2	2.7
12				2.5	2.4	2.0	2.7
OF				3.1	2.7	2.4	2.8

LAKE 302N Na (mg/L) 1971

DEPTH(m)	DAY #						
	133	161	189	217	245	273	301
EPI	.80	.81	.72	.81	.95	.58	.82
2	.79	.86	.65	.76	.88	.61	.80
3	.77	.75	.72	1.18	.89	.61	.82
5	.75	.80	.69	.97	.77	.61	.79
7	.84	.79	.70	.84	.79	.60	.81
10	.81	.95	.69	.89	.80	.62	.82
12	.79	.75	.71	1.22	.77	.61	.81
OF	.73	.78	.74	1.04	.76		.85

LAKE 302N Mg (mg/L) 1971

DEPTH(m)	DAY #						
	133	161	189	217	245	273	301
EPI	.66	.61	.60	.59	.59	.61	.64
2	.74	.61	.62	.59	.57	.63	.64
3	.66	.64	.60	.59	.55	.60	.66
5	.65	.63	.61	.59	.56	.66	.63
7	.68	.60	.63	.60	.59	.62	.64
10	.71	.61	.66	.65	.62	.68	.68
12	.68	.62	.67	.66	.64	.69	.67
OF	.64	.59	.61	.59	.58		.69

LAKE 302N K (mg/L) 1971

DEPTH(m)	DAY #						
	133	161	189	217	245	273	301
EPI	.39	.37	.39	.32	.39	.39	.40
2	.41	.39	.39	.39	.39	.41	.39
3	.39	.35	.37	.38	.39	.43	.39
5	.38	.37	.37	.36	.37	.45	.40
7	.44	.35	.39	.37	.36	.42	.41
10	.49	.49	.41	.44	.37	.46	.42
12	.46	.38	.45	.47	.43	.49	.41
OF	.40	.36	.38	.41	.43		.49

LAKE 302N SRSi (mg/L) 1971

DEPTH(m)	DAY #						
	133	161	189	217	245	273	301
EPI	.840	.470	.450	.320	.259	.313	.470
2	.870	.500	.450	.550	.215	.313	.490
3	.790	.500	.430	.370	.287	.201	.490
5	.950	.570	.440	.320	.287	.239	.500
7	.850	.610	.520	.490	.258	.320	.510
10	.850	.700	.850	.890	.817	.946	.490
12	.970	.890	1.090	1.070	1.100	1.190	.490
OF	.700	.490	.440	.430	.315	.329	.460

LAKE 302N Ca (mg/L) 1971

DEPTH(m)	DAY #						
	133	161	189	217	245	273	301
EPI	1.62	1.51	1.46	1.44	1.40	1.49	1.66
2	1.96	1.57	1.49	1.33	1.40	1.52	1.64
3	1.63	1.53	1.47	1.42	1.40	1.37	1.72
5	1.58	1.55	1.47	1.42	1.35	1.48	1.66
7	1.65	1.61	1.56	1.48	1.41	1.51	1.68
10	2.03	1.60	1.54	1.67	1.53	1.66	1.61
12	1.80	1.62	1.62	1.65	1.88	2.03	1.63
OF	1.58	1.63	1.49	1.40	1.44		1.61

LAKE 302N Chl-a (ug/L) 1971

DEPTH(m)	DAY #						
	133	161	189	217	245	273	301
EPI	2.5	3.7	2.8	2.9	2.5	3.8	4.3
2	2.2	4.4	2.7	2.9	3.4	3.4	4.2
3	3.0	3.6	3.2	3.6	3.5	2.9	5.2
5	2.9	3.9	2.7	3.5	3.3	3.1	4.2
7	6.2	7.8	3.7	4.4	5.6	3.7	4.2
10	3.6	5.8	7.0	7.9	5.8	4.7	4.4
12	2.3	4.1	3.1	6.3	8.0	8.4	4.4
OF							

LAKE 302N Colour (abs425nm) 1971

DEPTH(m)	DAY #						
	133	161	189	217	245	273	301
EPI	.020	.040	.038	.032	.039	.042	.047
2	.025	.030	.035	.030	.039	.035	.043
3	.027	.030	.029	.023	.037	.036	.047
5	.030	.030	.035	.030	.041	.037	.053
7		.030	.032	.027	.050	.045	.052
10		.035	.035	.048	.072	.149	.061
12		.035	.052	.107	.298	.348	.052
OF		.035	.035	.033	.052	.054	.052

Appendix 4

Lake 302 north basin 1972 water chemistry data

LAKE 302N Temp (C) 1972

DEPTH(m)	DAY #							
	020	046	095	125	139	153	167	181
EPI	2.70	.80	.34	5.46	16.39	18.61	17.11	21.76
2				5.31	15.38	18.42	17.11	21.56
3	3.54	3.91	3.76	5.26	10.94	16.72	17.11	19.91
5	3.90	4.17	4.15	5.21	7.47	9.10	9.62	12.16
7	3.91	4.18	4.18	5.16	6.16	6.25	6.96	7.41
9	3.98	4.29	4.38		5.40	5.51	5.81	6.11
10				4.97				
11	4.19	4.45	4.57	4.93	5.17	5.00	5.56	5.73
12		4.55	4.69	4.71				
13					5.14	5.27	5.50	5.61
OF				5.40	17.06	18.71	17.01	22.51

	195	209	223	237	251	265	272	279
EPI	21.70	20.53	18.39	20.11	16.91	14.28	11.04	10.57
2	21.70	20.43	18.38	20.06	16.92	14.33	11.07	10.53
3	21.30	20.23	18.33	19.59	16.92	14.33	11.09	10.53
5	14.70	15.43	17.43	17.32	16.83	14.33	11.10	10.18
7	8.40	9.05	9.06	9.20	10.33	12.53	11.10	10.04
9	6.70	6.95	6.73	6.90	7.51	7.71	7.92	9.22
10								
11	6.20	6.34	6.23	6.21	6.59	6.85		6.49
12								
13	6.10	6.20	6.11	6.10	6.46	6.64		6.42
OF	21.70	20.85	18.38	20.00	15.88	14.23		10.56

	286	293	320	348
EPI	9.35	5.72	1.82	1.79
2	9.20	5.76	1.95	2.22
3	9.05	5.76	2.22	2.42
5	9.00	5.76	2.55	2.76
7	9.00	5.72	2.90	3.01
9	9.00	5.71	3.04	3.28
10				
11		5.71	3.19	3.49
12				
13		5.71	3.36	3.71
OF		1.00		

LAKE 302N Cond (uS/cm) 1972

DEPTH(m)	DAY #							
	020	046	095	125	139	153	167	181
EPI	19	22	21	19	19	19	19	19
2				19	19	20	18	19
3	20	20	20	19	19	22	19	19
5	20	20	20	19	19	20	18	18
7	20	20	20	19	19	21	19	20
9	20	20	20		20	21	20	20
10				19				
11	21	20	20	20	20	22	21	27
12		21	22	20				
13					21	24	41	49
OF				19	19	21	19	18

	195	209	223	237	251	265	272	279
EPI	19	19	19	19	19	19	19	19
2	18	18	19	18	17	18	18	19
3	18	19	19	18	17	19	19	18
5	18	18	19	18	18	19	19	18
7	19	19	19	20	19	19	19	18
9	22	21	23	29	33	34	36	21
10								
11	40	45	54	57	61	73		77
12								
13	50	66	55	69	83	87		88
OF	19	18	19	18	18	17		18

	286	293	320	348
EPI	20	19	20	
2	20	20	19	21
3	20	20	19	20
5	20	22	19	20
7	20	22	19	21
9	20	22	20	22
10				
11		22	21	24
12				
13		23	21	33
OF		24		

LAKE 302N pH 1972

DEPTH(m)	DAY #							
	020	046	095	125	139	153	167	191
EPI	6.37	6.40	6.63	6.17	6.80	6.72	6.92	6.81
2				6.14	6.72	6.63	6.96	6.83
3	6.42	6.27	6.30	6.19	6.64	6.66	6.92	6.77
5	6.33	6.19	6.26	6.20	6.34	6.26	6.60	6.65
7	6.30	6.22	6.27	6.18	6.23	6.12	6.30	6.05
9	6.27	6.31	6.22		6.15	6.00	6.18	6.01
10				6.10				
11	6.34	6.00	6.00	6.11	6.11	6.01	6.15	6.01
12		5.99	6.19	6.08				
13					6.12	6.02	6.10	6.00
OF				5.24	6.49	6.25	6.29	6.45

	195	209	223	237	251	265	272	279
EPI	6.92	6.98	6.94	6.91	6.70	6.65	6.51	6.55
2	7.03	5.97	6.87	6.81	6.73	6.67	6.53	6.58
3	7.09	6.97	6.88	6.81	6.75	6.63	6.50	6.56
5	6.89	6.99	6.84	6.78	6.62	6.65	6.48	6.43
7	6.58	6.58	6.75	6.22	6.19	6.60	6.49	6.40
9	6.08	5.92	5.82	6.06	6.16	6.17	6.22	6.18
10								
11	6.16	6.11	6.07	6.17	6.10	6.03		6.05
12								
13	6.12	6.00	5.72	6.07	5.89	5.95		6.08
OF	6.97	6.72	6.60	6.64	6.70	6.60		5.67

	286	293	320	349
EPI	6.36	6.52	7.05	
2	6.38	6.52	7.05	6.89
3	6.38	6.52	7.01	6.71
5	6.42	6.53	6.79	6.69
7	6.32	6.50	6.69	6.53
9	6.34	6.53	6.66	6.43
10				
11		6.51	6.49	6.40
12				
13		6.53	6.47	6.34
OF		6.57		

LAKE 302N O2 (mg/L) 1972

DEPTH(m)	DAY #							
	020	046	095	125	139	153	167	191
EPI	10.38	10.58	9.20	7.95	9.07	9.67	8.90	8.29
2				8.05	9.21	8.62	8.95	9.25
3	10.25	8.30	7.14	7.02	9.39	8.91	8.96	8.39
5	9.90	9.03	7.14	7.35	8.13	9.15	9.90	10.37
7	9.09	7.89	7.09	7.21	6.76	6.49		4.49
9	7.66	10.30	6.58		4.81	4.01	4.71	2.91
10				7.90				
11	11.62	4.30	.40	6.15	3.79	3.30	1.93	.19
12		1.73	.29	4.69				
13					3.09	1.09	.21	< .01
OF								

	195	209	223	237	251	265	272	279
EPI	8.42	8.61	8.93	8.67	9.68	8.89		9.99
2	8.47	9.63	8.91	9.63	9.97	8.97		10.01
3	8.51	8.65	8.90	8.52	10.04	9.10		9.95
5	10.82	10.51	8.91	3.69	9.35	8.94		9.50
7	9.96	9.14	9.05	5.40	7.19	8.52		8.95
9	.89	.05	.16	.10	.01	.04		6.40
10								
11	< .01	< .01	< .01	< .01	< .01	< .01		< .01
12								
13	< .01	< .01	< .01	< .01	< .01	< .01		< .01
OF								

	286	293	320	349
EPI		11.00	13.42	
2		10.81	13.78	12.27
3		10.60	13.52	11.06
5		10.87	13.40	10.33
7		10.87	12.90	10.19
9		10.53	12.10	9.70
10				
11		10.44	11.86	5.26
12				
13		10.51	10.11	< .01
OF				

LAKE 302N NH3-N (ug/L) 1972

DEPTH(m)	DAY #							
	020	046	095	125	139	153	167	181
EPI	63	75	54	42	15	16	10	30
2				42	19	11	18	24
3	63	73	28	31	31	27	12	24
5	59	65	31	24	35	11	18	24
7	59	67	19	26	39	32	31	43
9	67	77	25		58	77	65	102
10				39				
11	51	65	73	52	106	139	192	709
12		220	200	78				
13					152	214	2900	2140
OF				33	19	30	59	37

	195	209	223	237	251	265	272	279
EPI	19	6	5	9	3	11		5
2	13	6	5	6	6	8		5
3	10	6	5	9	6	8		5
5	10	6	2	12	20	5		5
7	19	6	5	9	6	16		19
9	160	43	34	283	466	591		155
10								
11	1652	1664	2290	2540	3120	3520		4330
12								
13	2100	3590	6160	3580	5780	4910		6360
OF	29	8	5	12	44	14		7

	296	293	320	348
EPI		146	24	
2		137	22	40
3		150	24	54
5		133	46	69
7		135	46	83
9		146	56	112
10				
11		142	104	258
12				
13		140	133	742
OF		110		

LAKE 302N NO3-N (ug/L) 1972

DEPTH(m)	DAY #							
	020	046	095	125	139	153	167	181
EPI	14	14	17	111	63	28	1	1
2				113	61	23	1	1
3	16	28	68	110	64	25	1	1
5	20	38	77	112	70	45	11	1
7	29	34	74	109	70	62	47	49
9	54	24	136		65	56	61	49
10				111				
11	14	144	182	111	54	51	38	10
12		101	92	109				
13					56	39	3	37
OF				109	66	51	39	12

	195	209	223	237	251	265	272	279
EPI	1	1	1	2	1	2		1
2	1	1	1	2	1	2		1
3	1	1	1	2	1	2		1
5	1	2	1	2	2	2		1
7	1	2	1	2	2	2		1
9	14	1	1	2	3	7		1
10								
11	5	6	3	6	7	8		10
12								
13	9	6	4	8	9	7		10
OF	1	2	1	2	3	3		2

	296	293	320	348
EPI		1	10	
2		1	6	8
3		1	6	7
5		1	9	9
7		1	9	16
9		1	8	22
10				
11		1	11	52
12				
13		1	11	2
OF		1		

LAKE 302N TDN (ug/L.) 1972

DEPTH(m)	DAY #							
	020	046	095	125	139	153	167	181
EPI	217	249	210	254	261	193	177	193
2				254	272	203	163	184
3	214	230	206	233	307	200	179	175
5	203	226	155	254	293	230	225	174
7	236	230	209	242	320	230	226	237
9	235	265	209		336	245	251	256
10				254				
11	202	323	225	251	319	269	279	707
12		226	262	245				
13					327	274	2361	1720
OF				254	247	201	301	199

DEPTH(m)	DAY #							
	195	209	223	237	251	265	272	279
EPI	231	174	223	232	201	210		179
2	178	172	176	151	199	197		180
3	171	162	229	234	139	247		175
5	173	171	253	225	222	178		149
7	135	182	265	194	231	280		240
9	535	243	352	415	648	924		410
10								
11	1848	1500	2030	2540				4790
12								
13	2060	3110	3370	3320	4230	6700		4960
OF	178	142	243	210	229			183

DEPTH(m)	DAY #							
	296	293	320	348				
EPI			244					
2		359		251				
3			216	279				
5			259	273				
7			256					
9		387	232	319				
10								
11		362	347					
12								
13			331	1098				
OF		294						

LAKE 302N Susp N (ug/L) 1972

DEPTH(m)	DAY #							
	020	046	095	125	139	153	167	181
EPI	67			55		55	7	53
2				61	49	55	34	33
3	66				75	49	40	48
5	59				58	21	29	69
7	67			119	52	57	7	65
9	65				33	32	23	45
10								
11	56			22	30	40	9	125
12				73				
13					75	59	242	180
OF				95	94	50	1	73

DEPTH(m)	DAY #							
	195	209	223	237	251	265	272	279
EPI	140	113	101	50	59	45		79
2	53	95	61	50	59	37		85
3	79	105	57	30	66	43		95
5	75	107	78	54	23	41		101
7	117	183	99	98	78	50		78
9	100	254	255	124	112	113		96
10								
11	125	170	187	76	153	186		336
12								
13	119	202	252	154	195	228		373
OF	60	69	53	36	55	33		106

DEPTH(m)	DAY #							
	296	293	320	348				
EPI		101	191					
2		109	213	155				
3		92	169	94				
5		111	103	94				
7		84	75	83				
9		92	68	91				
10								
11		96	106	89				
12								
13		84	135	399				
OF		69						

LAKE 302N TDP (ug/L) 1972

DEPTH(m) DAY #

	020	046	095	125	139	153	167	181
EPI	4	1	7	5	9	2	3	2
2				4	9	3	4	5
3	2	4	4	4	12	3	4	5
5	2	1	6	4	8	2	4	6
7	2	1	7	4	5	3	5	7
9	4	3	4		6	2	9	5
10				4				
11	3	7	4	4	6	4	4	9
12		3	4	4				
13					9	3	86	244
OF				5	8	3	11	5

	195	209	223	237	251	265	272	279
EPI	2	3	5	4	4	3		5
2	4	4	3	4	4	2		5
3	1	3	4	7	3	2		4
5	2	4	2	3	3	6		4
7	2	4	4	5	4	3		5
9	4	8	9	16	12	18		7
10								
11	147	195	358	330	400	516		650
12								
13	312	524	857	439	739	704		592
OF	8	3	3	3	16	2		3

	296	293	320	348
EPI		6	6	
2		8	6	4
3		50	6	2
5		6	3	3
7		10	7	3
9		5	6	5
10				
11		8	6	7
12				
13		11	6	9
OF		5		

LAKE 302N Susp P (ug/L) 1972

DEPTH(m) DAY #

	020	046	095	125	139	153	167	181
EPI	5			5	7	4	29	9
2				5	7	4	6	5
3	5			5	6	4	6	12
5	5			5	7	5	8	9
7	6			6	5	11	7	15
9	5				8	10	15	14
10				6				
11	4			6	8	7	13	75
12				7				
13					13	13	124	52
OF				8	12	6	7	6

	195	209	223	237	251	265	272	279
EPI	8	3	5	4	5	5		9
2	4	4	4	4	5	6		9
3	10	6	4	5	5	5		7
5	9	11	4	5	25	5		7
7	9	17	6	15	26	7		8
9	41	89	56	54	10	35		15
10								
11	54	48	47	54	8	46		57
12								
13	56	58	53	56	87	55		69
OF	4	4	3	3	6	5		8

	296	293	320	348
EPI		23	16	
2		24	15	16
3		22	16	11
5		22	13	12
7		24	12	13
9		22	13	12
10				
11		24	17	11
12				
13		24	21	109
OF		19		

LAKE 302N DIC (uM/L) 1972

DEPTH(m)	DAY #							
	020	046	095	125	139	153	167	181
EPI	181	192	203	217	91	99	83	91
2				217	102	99	80	94
3	175	219	263	208	92	93	99	96
5	189	230	256	193	196	175	131	135
7	214	230	269	210	214	240	215	316
9	256	215	276		270	311	295	349
10				224				
11	160	331	432	243	295	346	379	477
12		429	473	277				
13					325	401	483	566
OF				188	113	159	195	157

	195	209	223	237	251	265	272	279
EPI	71	67	74	72	81	105	103	90
2	69	69	71	72	77	103	139	91
3	71	69	76	72	77	109	113	96
5	98	97	75	92	87	106	116	134
7	143	148	96	257	243	110	110	121
9	393	421	437	493	511	552	405	192
10								
11	494	471	550	571	607	684		649
12								
13	509	535	591	591	693	720		698
OF	76	88	94	79	90	94		68

	286	293	320	348
EPI	115	111	64	
2	116	117	60	130
3	119	112	68	129
5	113	119	97	130
7	121	124	96	172
9	120	119	104	192
10				
11		120	143	318
12				
13		122	165	571
OF		105		

LAKE 302N DOC (uM/L) 1972

DEPTH(m)	DAY #							
	020	046	095	125	139	153	167	181
EPI				423	476	391	332	309
2				421	333		331	263
3	495			362	472	336	318	392
5	413			992	568			371
7	499			339	482	335		343
9	356				469	312	288	329
10				431				
11	349				472	353	319	327
12								
13					537	620	336	245
OF				419	523	349	304	391

	195	209	223	237	251	265	272	279
EPI	440	437	497	299		435		
2		290	593	310	287	353		461
3	424	393	547	313	264	317		435
5	384	371	533	311	241	342		435
7	469	379	495	239	240	373		405
9	354	390	357	292	314	573		457
10								
11	411		367	305		518		686
12								
13		309	295	254	536	585		762
OF	368	343	335		300	345		444

	286	293	320	348
EPI		436	440	
2		371	417	423
3		397	409	433
5		434	432	405
7		343	467	493
9		343	454	346
10				
11			372	394
12				
13		356	404	370
OF		354		

LAKE 302N Susp C (ug/L) 1972

DEPTH(m)	DAY #							
	020	046	095	125	139	153	167	181
EPI	690			860		730	820	930
2				1030	790	660	770	750
3	900				1070	600	970	930
5	770				800	670	750	1010
7	840			900	950	720	790	930
9	770				740	740	730	910
10								
11	670			910	660	880	890	1370
12				1120				
13					940	1050	1990	1500
OF				1210	1710	790	690	770

	195	209	223	237	251	265	272	279
EPI	1120	900	730	920	720	650		970
2	550	850	650	910	700	649		1300
3	700	880	710	1100	740	615		1308
5	700	930	740	940	710	733		944
7	950	1480	1003	1390	1030	619		935
9	690	1580	1820	1570	1130	1227		972
10								
11	930	1210	1390	990	1200	1463		1992
12								
13	770	1490	1570	1430	1370	1575		2040
OF	560	710	690	450	590	551		1072

	296	293	320	348
EPI		1010	1755	
2		1028	1621	1258
3		993	1384	722
5		957	581	755
7		869	697	759
9		1060	664	771
10				
11		936	927	835
12				
13		950	1090	2678
OF		1182		

LAKE 302N CH4-C (uM/L) 1972

DEPTH(m)	DAY #							
	020	046	095	125	139	153	167	181
EPI		1	1	6	1	1	1	1
2				6	1	1	1	1
3		1	1	7	1	1	1	1
5		1	1	5	1	1	1	1
7		1	1	7	2	1	1	1
9		6	1		3	1	1	9
10				11				
11		1	1	15	5	1	1	14
12		4	13	22				
13					1	1	10	50
OF				4	1	1	6	4

	195	209	223	237	251	265	272	279
EPI	1	1	1	1	5	1	< 1	1
2	1	1	1	1	5	1	< 1	1
3	1	1	1	1	1	1	< 1	1
5	1	1	1	1	1	1	< 1	1
7	1	1	1	1	1	1	1	1
9	1	2	6	18	20	33	32	1
10								
11	41	37	81	76	95	144		167
12								
13	69	74	130	104	142	189		206
OF	1	1	1	1	1	2		1

	296	293	320	349
EPI	< 1		< 1	
2	< 1		< 1	1
3	< 1		< 1	1
5	< 1		< 1	1
7	< 1		< 1	1
9	< 1		< 1	1
10				
11			< 1	1
12				
13			< 1	3
OF				

LAKE 302N Cl (mg/L) 1972

DEPTH(m)	DAY #							
	020	046	095	125	139	153	167	181
EPI	.2			.3		.4		.3
2				.2		.3		.2
3	.2			.1		.3		.3
5	.3			.1		.4		.3
7	.3			.1		.3		.4
9	.2					.2		.4
10				.1				
11	.3			.2		.5		1.7
12				.1				
13						1.2		5.2
OF				.1		.3		.3

	195	209	223	237	251	265	272	279
EPI		.2		.2		.3		
2		.3		.2		.2		
3		.2		.2		.2		
5		.3		.4		.3		
7		.4		.5		.4		
9		1.5		2.0		3.0		
10								
11		4.4		5.6		10.4		
12								
13		6.9		7.3		14.0		
OF		.3		.1		.1		

	286	293	320	349
EPI		.9	.7	
2		.7	.8	1.0
3		.9	.6	1.0
5		.8	.7	.6
7		1.0	.7	.7
9		.9	.7	.9
10				
11		.5	.8	.7
12				
13		.8	.8	.9
OF		.7		

LAKE 302N SO4 (mg/L) 1972

DEPTH(m)	DAY #							
	020	046	095	125	139	153	167	181
EPI	2.8			2.5		2.7		2.9
2				2.5		2.7		2.9
3	2.7			2.6		2.6		2.9
5	2.8			2.4		2.4		2.7
7	2.7			2.5		2.5		2.9
9	2.7					2.3		2.8
10				2.4				
11	2.8			2.4		2.3		2.6
12				2.4				
13						1.8		2.4
OF				2.5		2.4		2.9

	195	209	223	237	251	265	272	279
EPI		3.1		2.8		2.9		
2		3.1		2.8		3.0		
3		3.1		2.9		2.9		
5		2.9		2.7		2.9		
7		2.9		2.5		2.9		
9		2.9		2.4		2.2		
10								
11		3.1		3.8		2.0		
12								
13		5.5		4.5		2.3		
OF		3.0		3.1		3.3		

	286	293	320	349
EPI		3.0	2.9	
2		3.0	2.8	2.9
3		2.9	2.9	2.8
5		3.0	2.9	2.8
7		2.9	2.9	2.7
9		2.9	2.9	2.7
10				
11		3.3	2.8	3.0
12				
13		3.0	2.8	2.4
OF		3.0		

LAKE 302N Na (mg/L.) 1972

DEPTH(m)	DAY #							
	020	046	095	125	139	153	167	191
EPI	.74			.70		.72	.72	.67
2				.68		.65	.74	.63
3	.72			.66		.65	.72	.65
5	.71			.66		.64	.70	.65
7	.79			.65		.64	.71	.65
9	.69					.64	.73	.65
10				.69				
11	.74			.68		.64	.73	.75
12				.59				
13						.67	.73	.67
OF				.69		.64	.69	.65

	195	209	223	237	251	265	272	279
EPI		.64		.64		.59		
2		.65		.62		.58		
3		.65		.61		.59		
5		.63		.64		.59		
7		.68		.64		.60		
9		.69		.66		.63		
10								
11		.67		.67		.64		
12								
13		.74		.76		.64		
OF		.65		.59		.60		

	296	293	320	349
EPI		1.03	1.90	
2		1.10	1.86	.73
3		.89	1.91	.79
5		.84	1.97	.68
7		.91	1.96	.66
9		.84	.86	.68
10				
11		.78	.81	.68
12				
13		.82	.74	.70
OF		.88		

LAKE 302N K (mg/L.) 1972

DEPTH(m)	DAY #							
	020	046	095	125	139	153	167	191
EPI	.40			.40		.39	.35	.35
2				.40		.36	.35	.34
3	.40			.41		.37	.34	.34
5	.38			.41		.36	.35	.36
7	.40			.40		.39	.35	.37
9	.39					.39	.35	.37
10				.41				
11	.41			.41		.37	.37	.39
12				.43				
13						.40	.39	.40
OF				.41		.39	.34	.36

	195	209	223	237	251	265	272	279
EPI		.35		.24		.24		
2		.34		.21		.24		
3		.36		.27		.25		
5		.37		.32		.25		
7		.39		.36		.29		
9		.41		.44		.34		
10								
11		.42		.44		.36		
12								
13		.41		.30		.37		
OF		.37		.29		.29		

	296	293	320	349
EPI		.40	.45	
2		.40	.45	.32
3		.40	.45	.37
5		.40	.45	.30
7		.41	.45	.31
9		.41	.41	.31
10				
11		.39	.42	.32
12				
13		.40	.42	.33
OF		.40		

LAKE 302N Ca (mg/l.) 1972

DEPTH(m)	DAY #							
	020	046	095	125	139	153	167	181
EPI	1.77			1.51		1.57	1.53	1.59
2				1.54		1.56	1.54	1.61
3	1.71			1.53		1.44	1.52	1.57
5	1.68			1.49		1.43	1.54	1.66
7	1.68			1.51		1.45	1.54	1.71
9	1.68					1.44	1.60	1.71
10				1.55				
11	1.80			1.53		1.43	1.60	1.65
12				1.57				
13						1.50	1.66	1.94
OF				1.59		1.46	1.54	1.53

	195	209	223	237	251	265	272	279
EPI		1.50		2.99		1.55		
2		1.50		1.58		1.50		
3		1.52		1.71		1.52		
5		1.52		1.32		1.57		
7		1.60		1.59		1.50		
9		1.47		2.05		3.17		
10								
11		1.94		2.15		2.47		
12								
13		2.05		2.89		2.39		
OF		1.52		2.81		1.46		

	286	293	320	348
EPI		1.60	1.52	
2		1.73	1.54	1.52
3		1.58	1.52	1.46
5		1.53	1.50	1.40
7		1.64	1.54	1.65
9		1.59	1.49	1.45
10				
11		1.59	1.57	1.60
12				
13		1.61	1.66	2.32
OF		1.57		

LAKE 302N Mg (mg/l.) 1972

DEPTH(m)	DAY #							
	020	046	095	125	139	153	167	181
EPI	.70			.66		.74	.68	.58
2				.66		.59	.64	.63
3	.67			.67		.60	.64	.63
5	.68			.64		.73	.64	.65
7	.69			.66		.59	.65	.65
9	.68					.60	.57	.68
10				.56				
11	.72			.67		.60	.66	.67
12				.67				
13						.61	.67	.62
OF				.68		.60	.65	.63

	195	209	223	237	251	265	272	279
EPI		.54		.67		.59		
2		.54		.91		.59		
3		.55		.94		.60		
5		.55		.66		.57		
7		.56		.77		.59		
9		.60		.79		.64		
10								
11		.61		.79		.64		
12								
13		.59		1.16		.64		
OF		.58		1.20		.56		

	286	293	320	348
EPI		.64	.60	
2		.68	.60	.61
3		.62	.60	.57
5		.62	.59	.58
7		.54	.60	.59
9		.63	.60	.53
10				
11		.63	.61	.60
12				
13		.63	.63	.58
OF		.62		

LAKE 302N Fe (mg/L) 1972

DEPTH(m)	DAY #							
	020	046	095	125	139	153	167	181
EPI				.11				
2				.09				
3				.10				
5				.07				
7				.10				
9								
10				.13				
11				.17				
12				.24				
13								
OF				.10				

DEPTH(m)	DAY #							
	195	209	223	237	251	265	272	279
EPI								
2								
3								
5								
7								
9								
10								
11								
12								
13								
OF								

DEPTH(m)	DAY #							
	285	293	320	349				
EPI		.05						
2		.06						
3		.05						
5		.05						
7		.06						
9		.05						
10								
11		.04						
12								
13		.05						
OF		.05						

LAKE 302N Ferrous-Fe (mg/L) 1972

DEPTH(m)	DAY #							
	020	046	095	125	139	153	167	181
EPI				.03				
2				.03				
3				.03				
5				.03				
7				.04				
9								
10				.05				
11				.07				
12				.13				
13								
OF				.05				

LAKE 302N Ferric-Fe (mg/L) 1972

DEPTH(m)	DAY #							
	020	046	095	125	139	153	167	181
EPI				.04				
2				.04				
3				.04				
5				.03				
7				.04				
9								
10				.04				
11				.03				
12				.09				
13								
OF				.04				

LAKE 302N SRSi (mg/L) 1972

DEPTH(m) DAY #

	020	046	095	125	139	154	167	181
EPI	.560			.650		.520	.400	.295
2				.630		.530	.400	.295
3	.570			.640		.530	.390	.280
5	.580			.650		.595	.450	.420
7	.630			.660		.665	.505	.600
9	.710					.810	.650	.700
10				.660				
11	.630			.690		.910	.860	.915
12				.800				
13						1.000	1.020	1.000
OF				.750		.520	.390	.350

	195	209	223	237	251	265	272	279
EPI		.420		.390		.315		
2		.430		.400		.315		
3		.395		.400		.315		
5		.430		.310		.315		
7		.370		.330		.320		
9		.890		.710		.885		
10								
11		1.060		1.100		1.160		
12								
13		1.230		1.140		1.230		
OF		.420		.440		.330		

	286	293	320	349
EPI		.420	.230	
2		.420	.230	.334
3		.440	.220	.315
5		.445	.240	.341
7		.440	.260	.334
9		.450	.280	.392
10				
11		.440	.360	.625
12				
13		.450	.380	1.300
OF		.440		

LAKE 302N Chl-a (ug/L) 1972

DEPTH(m) DAY #

	020	046	095	125	139	153	167	181
EPI	1.7	1.7	.8	1.8	2.4	2.3	3.5	2.9
2				1.6	2.4	2.2	3.5	2.8
3	1.3	1.0	.6	1.6	2.9	2.5	2.9	3.0
5	1.2	.8	.6	2.0	5.8	3.6	3.4	4.1
7	1.2	.8	.6	1.7	5.3	6.8	4.4	6.2
9	1.3	1.0	.6		2.4	3.6	4.2	4.6
10				1.7				
11	1.8	1.2	1.5	1.6	2.3	3.0	2.6	6.5
12		9.5	2.6	1.6				
13					2.5	2.6	4.2	6.8
OF								

	195	209	223	237	251	265	272	279
EPI	3.8	3.5	3.8	5.5	7.1	6.9		11.2
2	3.8	4.0	4.2	4.8	6.6	5.8		9.7
3	4.1	5.5	3.6	5.7	6.6	5.6		9.7
5	6.6	6.8	4.2	9.4	7.9	6.2		9.2
7	16.9	23.2	7.0	8.6	8.3	5.8		7.4
9	9.1	23.7	23.1	15.0	24.5	34.4		6.3
10								
11	7.4	10.5	18.8	21.1	29.9	35.7		32.0
12								
13	8.3	13.0	16.6	21.0	29.2	33.0		34.2
OF								

	286	293	320	349
EPI		15.8	30.9	
2		16.0	32.5	25.2
3		16.7	29.7	13.2
5		17.0	20.0	7.1
7		17.6	11.9	5.7
9		15.6	9.3	5.4
10				
11		17.0	9.7	5.6
12				
13		17.0	12.1	20.8
OF				

LAKE 302N Colour (abs425nm) 1972

DEPTH(m)	DAY #							
	020	046	095	125	139	153	167	181
EPI	.050	.059	.053	.066	.059	.063	.051	.043
2				.064	.053	.056	.049	.041
3	.050	.050	.049	.062	.057	.061	.049	.043
5	.064	.045	.060	.065	.053	.060	.064	.060
7	.052	.043	.045	.066	.065	.063	.059	.061
9	.051	.057	.043		.068	.063	.059	.055
10				.066				
11	.051	.057	.081	.072	.079	.075	.073	.076
12		.109	.103	.090				
13					.131	.111	.181	.135
OF				.075	.061	.064	.059	.055

	195	209	223	237	251	265	272	279
EPI	.046	.052	.043	.079	.060	.070		.090
2	.042	.049	.043	.076	.064	.060		.063
3	.040	.053	.049	.079	.060	.066		.059
5	.049	.054	.049	.060	.073	.059		.063
7	.052	.060	.051	.053	.050	.062		.067
9	.060	.069	.073	.100	.137	.100		.110
10								
11	.184	.213	.152	.137	.140	.125		.147
12								
13	.229	.232	.134	.139	.130	.109		.172
OF	.043	.053	.050	.080	.070	.060		.058

	286	293	320	348
EPI		.059	.066	
2		.055	.063	.070
3		.057	.061	.060
5		.059	.059	.054
7		.056	.071	.056
9		.064	.061	.062
10				
11		.060	.065	.075
12				
13		.060	.068	.120
OF		.060		

Appendix 5

Lake 302 north basin 1973 water chemistry data

LAKE 302N Temp (C) 1973

DEPTH(m)	DAY #							
	024	052	080	107	127	135	141	149
EPI					7.22		13.59	
2	2.33	1.82	2.50	4.10	6.81		12.25	
3	2.53	2.88	3.11	4.10	6.62		11.07	
5	3.18	3.30	3.51	4.10	5.98		8.77	
7	3.49	3.58	3.90	4.00	5.58		6.14	
9	3.73	3.82	3.98	4.00	5.50		5.55	
11	3.94	3.99	4.05	4.10	5.47		5.46	
13	4.20	4.27	4.40	4.30	5.38		5.40	
OF					7.45	10.20	12.72	12.90

	155	162	169	176	183	190	197	204
EPI	16.58		17.75		20.98		20.96	
2	16.59		17.75		20.80		20.96	
3	16.58		17.71		19.30		20.93	
5	9.80		12.05		13.95		16.10	
7	7.25		7.45		7.95		9.10	
9	6.00		6.10		6.30		6.95	
11	5.55		5.79		5.95		6.19	
13	5.50		5.70		5.92		6.02	
OF	15.00	14.00	17.20	19.20	21.60	21.30	20.90	21.90

	211	218	225	232	239	246	253	260
EPI	19.22		21.08		21.72		18.50	
2	19.22		21.05		21.70		18.50	
3	19.22		20.88		21.63		18.50	
5	18.17		18.52		18.23		18.39	
7	9.52		9.75		10.59		11.50	
9	6.87		8.30		7.00		7.70	
11	6.14		6.41		6.49		6.59	
13	6.07		6.32		6.38		6.55	
OF	18.92	22.10	21.08	23.10	21.67	20.00	17.70	13.10

	267	274	281	288	295	302	309	353
EPI	12.39		12.82		9.12		5.35	2.27
2	12.39		12.81		9.12		5.35	3.80
3	12.39		12.90		9.12		5.35	3.51
5	12.39		12.78		8.97		5.35	3.90
7	12.27		12.85		8.80		5.35	3.93
9	7.36		8.68		8.79		5.31	4.10
11	6.99		6.79		7.68		5.27	4.30
13	6.39		6.69		6.60		5.25	4.55
OF	12.37	13.31	12.76	10.00	8.97	5.92	2.31	

LAKE 302N Cond (uS/cm) 1973

DEPTH(m)	DAY #							
	024	052	080	107	127	135	141	149
EPI					20		19	
2	22	21	21	20	19		18	
3	23	20	21	20	19		19	
5	21	21	21	21	20		19	
7	21	22	21	22	20		20	
9	22	22	22	22	20		21	
11	23	24	23	31	20		23	
13	39	48	41	52	21		22	
OF					21	19	19	20

	155	162	169	176	183	190	197	204
EPI	19		18		19		19	
2	19		19		19		19	
3	19		18		19		19	
5	19		19		19		19	
7	21		20		21		21	
9	21		25		28		27	
11	25		40		47		56	
13	29		50		62		61	
OF	19	19	19	19	19	20	19	20

	211	218	225	232	239	246	253	260
EPI	19		19		19		19	
2	18		19		19		19	
3	19		19		19		19	
5	18		19		19		19	
7	22		22		22		20	
9	26		44		49		42	
11	63		73		79		82	
13	94		97		94		103	
OF	19	18	19	19	19	17	19	19

	267	274	281	288	295	302	309	353
EPI	18		19		20		23	26
2	18		19		20		23	22
3	19		19		21		23	23
5	18		19		20		23	23
7	19		19		21		23	24
9	51		58		22		24	26
11	89		97		61		23	27
13	102		93		111		23	38
OF	19	21	19	19	21	19	23	

LAKE 302N pH 1973

DEPTH(m) DAY #

	024	052	080	107	127	135	141	148
EPI					6.30		6.53	
2	6.42	6.31	6.16	6.30	6.29		6.75	
3	6.41	6.17	6.08	6.30	6.22		6.90	
5	6.24	6.08	5.92	6.21	6.18		6.61	
7	6.14	6.01	5.94	6.03	6.11		6.16	
9	5.99	5.81	5.73	6.04	6.09		6.06	
11	5.94	6.00	5.90	6.29	6.09		6.02	
13	6.42	6.58	6.43	6.50	6.07		6.06	
OF					6.29	6.52	6.39	6.33

	155	162	169	175	183	190	197	204
EPI	6.57		6.73		6.96		6.93	
2	6.62		6.78		6.91		6.85	
3	6.70		6.74		6.92		6.89	
5	6.62		6.55		6.71		6.72	
7	6.10		6.05		6.09		6.07	
9	6.00		5.91		5.92		5.86	
11	5.93		5.87		6.08		6.10	
13	5.90		5.98		6.00		6.07	
OF	6.20	6.36	6.44	6.62	6.51	6.71	6.62	6.47

	211	218	225	232	239	246	253	260
EPI	6.71		6.68		6.95		6.71	
2	6.79		6.71		6.97		6.72	
3	6.81		6.78		6.73		6.65	
5	6.61		6.44		5.49		5.56	
7	6.00		5.91		5.91		5.73	
9	5.83		6.02		6.04		5.95	
11	6.02		6.01		6.03		6.07	
13	5.83		5.87		5.86		5.86	
OF	6.55	6.49	6.53	6.59	6.51	6.60	6.54	6.54

	267	274	281	289	295	302	309	353
EPI	6.46		6.53		6.39		6.34	6.49
2	6.45		6.55		6.39		6.35	6.34
3	6.48		6.50		6.36		6.41	6.23
5	6.45		6.57		6.35		6.40	6.22
7	6.40		6.34		6.30		6.37	6.21
9	6.19		6.29		6.19		6.39	6.13
11	6.05		6.19		5.92		6.20	6.07
13	5.91		6.16		6.24		6.35	6.23
OF	6.50	6.65	6.51	6.30	6.47	5.37	6.40	

LAKE 302N O2 (mg/L) 1973

DEPTH(m) DAY #

	024	052	080	107	127	135	141	148
EPI					10.10		10.61	
2	11.01	9.80	10.01	9.35	10.10		11.21	
3	13.99	8.66	9.20	9.40	9.70		11.31	
5	10.43	7.69	7.68	8.61	8.90		10.79	
7	9.52	6.30	6.90	5.26	8.70		8.19	
9	8.05	2.10	3.19	2.20	3.50		6.70	
11	2.36	.10	1.73	< .01	8.30		6.65	
13	< .01	< .01		< .01	7.40		4.34	
OF								

	155	162	169	176	183	190	197	204
EPI	9.20		8.92		8.62		8.39	
2	9.27		8.90		8.65		8.40	
3	9.21		8.90		9.00		8.42	
5	11.60		9.90		10.02		10.22	
7	7.70		8.55		5.70		5.52	
9	5.28		4.30		1.73		.52	
11	1.15		1.10		< .01		< .01	
13	1.55		< .01		< .01		< .01	
OF								

	211	218	225	232	239	246	253	260
EPI	8.80		8.52		8.37		8.50	
2	9.92		9.60		9.40		8.45	
3	8.95		8.55		8.50		8.33	
5	8.60		8.55		8.55		8.35	
7	3.93		1.68		2.50		1.23	
9	.78		< .01		.30		< .01	
11	< .01		< .01		< .01		< .01	
13	< .01		< .01		< .01		< .01	
OF								

	267	274	281	289	295	302	309	353
EPI	8.70		9.12		9.65		10.16	13.90
2	8.74		9.56				10.00	9.90
3	8.70		9.40		9.26		9.52	9.90
5	8.70		9.40		9.59		9.25	9.80
7	8.49		7.96		9.20		10.65	8.80
9	.30		2.20		8.18		10.20	9.10
11	< .01		< .01		.30		9.92	3.12
13	< .01		< .01		< .01		9.90	.19
OF								

LAKE 302N NH3-N (ug/L) 1973

DEPTH(m) DAY #

	024	052	080	107	127	136	141	149
EPI					9		3	
2	98	49	29	6	9		3	
3	90	8	4	13	11		3	
5	75	4	9	15	24		3	
7	90	14	4	15	29		17	
9	71	20	35	90	33		60	
11	230	401	224	559	35		117	
13	785	1184	1032	1603	54		146	
OF					7	7	3	3

	155	162	169	176	183	193	197	204
EPI	20		9		8		2	
2	17		9		9		2	
3	13		11		8		2	
5	17		19		8		2	
7	33		35		8		5	
9	150		389		749		517	
11	556		1622		2185		2435	
13	907		2490		3364		2935	
OF	13	33	24	27	18	6	30	8

	211	218	225	232	239	245	253	260
EPI	5		3		6		2	
2	5		3		6		2	
3	5		3		6		5	
5	5		5		6		5	
7	5		9		9		5	
9	433		1584		1956		1852	
11	3476		4369		4722		5245	
13	5747		5630		6035		7160	
OF	7	10	5	8	33	1	14	4

	267	274	281	288	295	302	309	353
EPI	5		5		118		197	193
2	5		7		120		197	184
3	5		7		129		195	192
5	5		7		137		197	187
7	16		9		149		195	203
9	1949		1897		222		197	203
11	5296		5297		4059		195	477
13	6146		6251		6700		195	911
OF	23	28	21	79	99	179	174	

LAKE 302N NO3-N (ug/L) 1973

DEPTH(m) DAY #

	024	052	080	107	127	136	141	149
EPI					104		31	
2	21	79	133	116	103		31	
3	13	129	158	116	106		31	
5	55	164	202	135	112		55	
7	62	193	192	212	105		102	
9	121	294	257	173	111		74	
11	183	14	147	34	111		75	
13	18	2	33	18	107		77	
OF					105	203	79	41

	155	162	169	176	183	193	197	204
EPI	2		2		1		1	
2	2		3		1		1	
3	2		2		1		1	
5	22		15		1		1	
7	83		77		53		29	
9	82		73		13		2	
11	67		14		3		13	
13	51		15		3		16	
OF	10	31	9	8	6	2	7	6

	211	218	225	232	239	245	253	260
EPI	9		1		1		1	
2	1		1		1		1	
3	1		1		1		1	
5	1		1		1		1	
7	9		1		1		1	
9	2		5		3		2	
11	8		4		15		9	
13	7		4		21		12	
OF	2	2	1	5	5	1	5	3

	267	274	281	288	295	302	309	353
EPI	1		1		2		7	14
2	1		1		2		9	14
3	1		1		2		8	13
5	1		1		2		8	17
7	1		1		1		7	29
9	9		9		1		8	33
11	9		12		1		7	62
13	8		14		17		7	8
OF	2	6	7	2	4	12	9	

LAKE 302N TDN (ug/L) 1973

DEPTH(m) DAY #

	024	052	080	107	127	135	141	149
EPI					338		272	
2	334	316	373	311			214	
3	332	258	347	298	337		253	
5	339	300	350	291	325		255	
7	350	303	368	321	319		291	
9	393	578	491	505	390		353	
11	755	648	535	731	299		412	
13	1370	1091	862	1687	391		370	
OF					201		220	257

	155	162	169	176	183	190	197	204
EPI			193					
2	238		182		193		228	
3			192		219			
5	205		230		204		192	
7	252		255		295			
9			670		1242		790	
11	724		1432		1100		1450	
13	959		3872		4250		2137	
OF		273	221	204			211	

	211	218	225	232	239	246	253	260
EPI			194		194		197	
2			187		182		213	
3			300		219		193	
5	149		198		211		216	
7			210		207		265	
9	708		1553		2387		1907	
11	1457		4648		4941		4515	
13	3714		4004		4950		6145	
OF	204		193	211	213		133	209

	267	274	281	288	295	302	309	353
EPI			179		331		393	364
2	177		205		344		473	373
3	169		192		349		365	365
5	198		202		310		374	383
7	100		192		345		384	412
9	2120		2630		418		366	374
11	6575		6116		4814		366	522
13	6459		5653		6105		359	975
OF	193	189	199	251	330	379	406	

LAKE 302N Susp N (ug/L) 1973

DEPTH(m) DAY #

	024	052	080	107	127	135	141	149
EPI					66		91	
2	47	41	53	133	146		118	
3		31	74	75	80		111	
5	50	29	62	104	61		127	
7	56	48	69	66	3		65	
9	61	51	114	109	10			
11	91	154	117	119	59		93	
13	186	270	199	202	59		176	
OF					39	78	81	95

	155	162	169	176	183	190	197	204
EPI	106		95		64		149	
2	53		53		72			
3			117		72		109	
5	95		85		96		93	
7	117		53		101		129	
9	42		106		442		563	
11	254		201		169		237	
13	212		276		205		293	
OF	382	32	64	18	89	64	113	99

	211	218	225	232	239	246	253	260
EPI			76		42		115	
2			82		111		97	
3	126		99		134		95	
5			79		139		98	
7			120		157		335	
9	191		286		31		303	
11	337		456		445		375	
13	408		524		497		556	
OF	151	146	57	44	96	69	92	73

	267	274	281	288	295	302	309	353
EPI	83		77		129		197	171
2	92		77		147		187	164
3	74		89		156		176	93
5	64		97		100		162	92
7	113		69		112		155	56
9	229		220		118		156	93
11	369		579		447		174	104
13	477		274		417		143	264
OF	76	78	77	62	178	189	197	

LAKE 302N TDP (ug/L) 1973

DEPTH(m)	DAY #							
	024	052	080	107	127	135	141	149
EPI					5		7	
2	8	6	9	7	5		5	
3	6	9	19	8	5		5	
5	7	5	8	8	7		5	
7	6	6	8	17	10		6	
9	8	9	10	11	6		6	
11	13	12	15	25	5		6	
13	32	74	110	107	6		9	
OF					5	3	3	5

	155	162	169	176	193	190	197	204
EPI	5		2		8		8	
2	6		3		9		3	
3	5		3		8		3	
5	7		5		5		5	
7	10		8		14		6	
9	9		14		18		18	
11	13		110		232		334	
13	16		252		473		476	
OF	7	16	4	5	5	4	5	4

	211	218	225	232	239	246	253	260
EPI	2		10		3		4	
2	3		10		3		4	
3	2		6		3		3	
5	3		9		4		4	
7	5		12		7		9	
9	10		95		93		51	
11	463		681		693		732	
13	1000		964		986		1093	
OF	2	3	26	3	4	3	3	3

	267	274	281	288	295	302	309	353
EPI	3		4		3		6	7
2	3		3		3		7	6
3	3		3		3		6	6
5	3		3		3		7	7
7	3		5		3		6	8
9	94		102		6		7	7
11	900		826		98		7	14
13	1101		985		1027		7	22
OF	3	3	4	4	2	7	7	

LAKE 302N Susp P (ug/L) 1973

DEPTH(m)	DAY #							
	024	052	080	107	127	136	141	148
EPI					8		8	
2	8	9	11	9	10		13	
3	9	8	6	10	12		8	
5	9	7	1	10	8		9	
7	9	8	4	9	6		9	
9	11	11	5	18	6		9	
11	15	45	5	30	7		9	
13	59	51	5	43	9		22	
OF					9	5	6	11

	155	162	169	176	193	190	197	204
EPI	11		10		5		5	
2	53		8		10		4	
3	10		46		9		3	
5	10		13		11		4	
7	17		20		20		13	
9	12		22		98		152	
11	44		97		53		56	
13	95		104		46		58	
OF	33	11	9	11	9	16	5	5

	211	218	225	232	239	246	253	260
EPI	7				5		7	
2	7				5		7	
3	3				4		8	
5	3				8		6	
7	7				18		37	
9	27				137		109	
11	49				93		108	
13	59				111		129	
OF	2	7		3	5	4	6	6

	267	274	281	288	295	302	309	353
EPI	7		5				24	18
2	7		4		19		27	13
3	6		5		20		24	13
5	8		5		18		25	12
7	8		6		19		26	11
9	118		102		22		24	13
11	109		87		552		25	25
13	155		102		165		25	120
OF	10	4	6	8	25		24	

LAKE 302N DIC (uM/L) 1973

DEPTH(m) DAY #

	024	052	080	107	127	136	141	149
EPI					149		82	
2	142	149	168	182	149		73	
3	136	165	191	181	171		73	
5	173	203	243	229	191		106	
7	201	233	240	317	219		114	
9	242	325	361	360	237		272	
11	381	448	412	532	246		312	
13	584	673	512	820	253		355	
OF					150	105	125	123

	155	162	169	176	183	190	197	204
EPI	103		93		76		77	
2	97		87		74		81	
3	93		78		74		78	
5	104		111		103		106	
7	252		244		307		315	
9	317		374		472		454	
11	393		489		521		559	
13	419		521		557		574	
OF	166	144	110	107	117	89	96	108

	211	218	225	232	239	246	253	260
EPI	70		90		77		94	
2	72		85		76		81	
3	73		79		86		93	
5	95		130		127		89	
7	357		424		441		403	
9	469		590		629		634	
11	624		708		729		762	
13	710		748		757		771	
OF	98	89	96	71	120	61	99	116

	267	274	281	289	295	302	309	353
EPI	145		101		130		119	83
2	136		100		124		120	132
3	142		96		136		119	140
5	151		96		135		123	151
7	153		144		155		127	178
9	869		640		184		125	189
11	979		735		727		123	336
13	1063		740		1001		129	466
OF	132	89	99	91	118	142	110	

LAKE 302N DOC (uM/L) 1973

DEPTH(m) DAY #

	024	052	080	107	127	136	141	149
EPI					544			
2	261	454	653		503			
3	243	482	757	406	498			
5	225	440	405	357	255			
7	258	564	436	419	495			
9	230	477	418	420	521			
11	284	410	320	480	475			
13	243	750	518	918	496			
OF					519	530		451

	155	162	169	176	183	190	197	204
EPI	455				347			
2	436				399			
3					389			
5	424				375			
7	388				396			
9	490				358			
11					471			
13	401				553			
OF		446		572	389	454	461	

	211	218	225	232	239	246	253	260
EPI	427				494			
2	418							
3	405				472			
5					466			
7	381				447			
9	397				466			
11	537				702			
13	694				732			
OF	408		472	494	455	469	427	476

	267	274	281	288	295	302	309	353
EPI	376		407		545		293	245
2	432		383		517		427	257
3	449		492		494		331	197
5	451		339		459		390	225
7			421		562		371	251
9			433		523		407	319
11	832		460		539		339	370
13			855		1030		331	409
OF	406	493	396		570	484	398	

LAKE 302N Susp C (ug/L.) 1973

DEPTH(m)	DAY #							
	024	052	080	107	127	135	141	149
EPI					860		930	
2	392	450	594	790	970		1090	
3		450	744	850	930		1170	
5	565	370	660	720	770		1040	
7	613	570	548	750	650		690	
9	610	530	944	790	670		690	
11	655	1400	916	920	790		740	
13	1230	1910	1468	1390	670		1250	
OF					911	950	880	650

	155	162	169	176	183	190	197	204
EPI	910		710		590		1280	
2	620		590		860			
3			1230		750		1010	
5	1110		810		890		970	
7	930		1140		960		1180	
9	720		710		2220		2910	
11	1310		1450		1390		1500	
13	1300		1700		1250		1710	
OF	3530	1170	710	610	1110	720	1860	1060

	211	218	225	232	239	246	253	260
EPI	920		830		630		890	
2	990		810		640		940	
3	920		830		680		720	
5	850		790		900		720	
7	1140		1040		890		1880	
9	940		2000		1940		2200	
11	2540		2490		2220		2150	
13	2570		2760		5170		2790	
OF	1120	880	720	660	610	780	790	900

	267	274	281	288	295	302	309	353
EPI	790		670		1040		1360	1110
2	840		790		1000		1360	1120
3	730		850		1220		1220	860
5	750		820		810		1260	990
7	1040		620		900		1170	540
9	1740		1410		920		1150	760
11	2290		3450		3340		1220	690
13	2400		1620		2240		1100	1730
OF	810	840	720	660	1090	1860	1360	

LAKE 302N CH4-C (uM/L.) 1973

DEPTH(m)	DAY #							
	024	052	080	107	127	136	141	149
EPI					2		1	
2	1	1	1	1	2		1	
3	1	1	1	1	2		1	
5	1	1	1	1	1		1	
7	1	1	1	1	1		1	
9	1	1	1	2	1		1	
11	1	2	1	12	1		1	
13	48	164	149	194	2		2	
OF					2	1	1	

	155	162	169	176	183	190	197	204
EPI	3		1		1		1	
2	2		1		1		1	
3	2		1		1		1	
5	1		1		1		1	
7	1		1		1		1	
9	1		1		1		2	
11	1		17		51		90	
13	1		46		90		102	
OF	2		1		2		2	

	211	218	225	232	239	246	253	260
EPI	1		3		2		1	
2	1		3		2		1	
3	1		2		2		1	
5	1		2		3		1	
7	1		1		1			
9	7		79		107		86	
11	132		199		250		254	
13	220		260		291		279	
OF	2		2		3		1	

	267	274	281	288	295	302	309	353
EPI	5		2		1		1	2
2	3		2		1		1	1
3	3		1		1		1	1
5	3		1		1		1	1
7	2		1		1		1	1
9	151		142		1		1	1
11	273		272		241		1	1
13	356		299		518		2	4
OF	1		1		1		2	

LAKE 302N Cl (mg/L) 1973

DEPTH(m)	DAY #							
	024	052	080	107	127	136	141	148
EPI					.7		.8	
2	.8	.7	.8	1.0	.7		.8	
3	.8	.7	.8	1.0	.7		.8	
5	.6	.2	.8	.9	.7		.8	
7	.7	.9	.7	1.0	.7		.8	
9	.9	.8	.8	.9	.8		.9	
11	.9	.9	.9	1.0	.7		.7	
13	.9	1.0	1.0	1.2	.8		.8	
OF					.8	.7	.7	.8

	155	162	169	176	183	190	197	204
EPI	.7		.7		.7		1.0	
2	.7		.7		.8		1.0	
3	.7		.7		.8		1.0	
5	.7		.8		.8		1.0	
7	.8		.7		.9		1.4	
9	.9		1.4		2.3		2.8	
11	1.6		4.1		5.4		7.0	
13	2.4		5.9		8.0		8.4	
OF	.7	.6	.7	.7	.8	.7	1.2	.8

	211	218	225	232	239	246	253	260
EPI	1.0		1.0		1.0		1.0	
2	1.0		1.0		1.0		1.0	
3	1.2		.8		1.2		1.0	
5	1.0		1.0		1.2		1.0	
7	1.4		1.2		1.6		1.4	
9	2.8		4.8		6.6		5.9	
11	9.0		10.8		12.6		12.8	
13	13.8		14.0		16.6		17.2	
OF	1.0	.8	1.0		1.2	1.2	1.2	1.0

	267	274	281	288	295	302	309	353
EPI	1.2		1.2		1.8		1.8	2.2
2	1.2		1.2		1.6		1.8	1.8
3	1.2		1.2		1.6		1.8	2.2
5	1.2		1.2		1.6		2.0	2.0
7	1.6		1.4		1.6		1.8	2.0
9	6.6		6.8		1.8		1.8	2.0
11	15.0		14.4		10.0		2.0	1.6
13	18.2		16.0		12.6		2.0	2.0
OF	1.2	1.2	1.2	1.4	1.6	1.8	2.0	

LAKE 302N SO4 (mg/L) 1973

DEPTH(m)	DAY #							
	024	052	080	107	127	136	141	148
EPI					3.7		3.9	
2	3.3	3.1	3.9	4.1	3.6		3.7	
3	3.5	3.0	3.7	4.3	3.7		3.7	
5	3.2	2.6	3.8	4.4	3.6		3.7	
7	2.9	2.8	3.8	4.6	3.7		3.6	
9	2.8	2.8	3.6	4.4	3.6		3.7	
11	2.5	2.6	3.5	3.2	3.6		3.7	
13	1.8	1.3	2.0	1.6	3.6		3.5	
OF					3.6	3.5	3.7	2.7

	155	162	169	176	183	190	197	204
EPI	3.9		3.8		3.4		2.9	
2	3.9		3.9		3.4		3.0	
3	3.9		3.9		3.3		3.0	
5	3.8		3.8		3.4		2.9	
7	3.8		3.9		3.4		3.0	
9	3.7		3.7		3.1		2.9	
11	3.7		3.6		3.0		2.2	
13	3.6		3.6		3.3		1.8	
OF	3.8	3.8	3.8	3.6	3.8	3.5	2.9	3.6

	211	218	225	232	239	246	253	260
EPI	3.0		3.2		3.4		3.2	
2	3.0		3.0		3.2		3.2	
3	3.0		3.0		3.2		3.0	
5	3.2		3.0		3.6		3.0	
7	2.8		3.0		2.8		2.8	
9	2.8		3.8		2.8		2.6	
11	1.6		1.4		1.4		1.8	
13	1.4		1.2		1.4		2.6	
OF	3.0	2.8	3.0		3.2	3.2	3.2	3.2

	267	274	281	288	295	302	309	353
EPI	3.0		3.0		8.2		3.0	4.2
2	2.8		2.8		3.0		2.8	3.0
3	2.8		2.8		3.0		2.8	3.2
5	3.0		2.8		3.0		2.8	4.8
7	3.6		2.8		3.0		2.8	3.0
9	2.4		2.2		3.0		2.8	3.0
11	1.4		1.2		2.6		2.8	3.2
13	1.4		1.0		3.0		2.8	2.6
OF	3.0	3.0	2.8	3.0	3.0	3.0	2.8	

LAKE 302N Na (mg/L) 1973

DEPTH(m)	DAY #							
	024	052	080	107	127	136	141	149
EPI					.66		.69	
2	.75	.67	.67	.67	.68		.77	
3	.81	.64	.62	.67	.69		.68	
5	.68	.69	.64	.65	.68		.66	
7	.68	.68	.65	.69	.76		.71	
9	.73	.67	.65	.70	.66		.67	
11	.77	.69	.65	.70	.69		.69	
13	.71	.66	.65	.71	.75		.69	
OF					.65	.66	.68	.66

	155	162	169	176	183	190	197	204
EPI	.76		.86		.73		.66	
2	.71		.92		.72		.67	
3	.70		.89		.76		.65	
5	.70		.90		.73		.69	
7	.67		.91		.79		.84	
9	.74		.87		.83		.69	
11	.72		.87		.84		.70	
13	.75		.87		.85		.75	
OF	.74	.66	.84	.67	.74	.72	.65	.67

	211	218	225	232	239	246	253	260
EPI	.65		.83		.69		.75	
2	.77		.82		.70		.74	
3	.68		.84		.80		.73	
5	.70		.75		.88		.68	
7	.68		.84		.78		.70	
9	.72		.90		.82		.72	
11	.74		.80		.76		.75	
13	.76		1.29		.80		.75	
OF	.64	.65	.76	.67	.71	.73	.66	.65

	267	274	281	288	295	302	309	353
EPI	.77		.70		1.00		.62	.82
2	.74		.66		.70		.62	.70
3	.72		.67		.66		.64	.68
5	.72		.66		.63		.63	.70
7	.70		.72		.62		.62	.70
9	.74		.77		.64		.64	.69
11	.80		.71		.70		.66	.69
13	.78		.71		.71		.70	.72
OF	.71	.73	.65	.70	.60	1.07	.71	

LAKE 302N K (mg/L) 1973

DEPTH(m)	DAY #							
	024	052	080	107	127	136	141	148
EPI								
2	.42	.45	.40	.53				
3	.46	.43	.38	.51				
5	.39	.44	.38	.52				
7	.41	.45	.39	.35				
9	.43	.46	.40	.39				
11	.43	.49	.41	.45				
13	.47	.51	.45	.49				
OF								

LAKE 302N Ca (mg/L) 1973

DEPTH(m)	DAY #							
	024	052	080	107	127	136	141	148
EPI								
2	1.67	1.60	1.71	1.52				
3	1.81	1.59	1.64	1.52				
5	1.69	1.80	1.75	1.56				
7	1.72	1.74	1.76	1.59				
9	1.83	1.76	1.72	1.60				
11	1.78	1.70	1.71	2.67				
13	2.70	2.63	2.45	3.09				
OF								

LAKE 302N Mg (mg/L) 1973

DEPTH(m)	DAY #							
	024	052	080	107	127	136	141	148
EPI								
2	.63	.72	.70	.67				
3	.69	.67	.66	.68				
5	.61	.74	.69	.68				
7	.64	.70	.67	.70				
9	.67	.71	.67	.72				
11	.66	.73	.67	.83				
13	.70	.73	.71	.82				
OF								

LAKE 302N SRSi (mg/L) 1973

DEPTH(m)	DAY #							
	024	052	080	107	127	135	141	148
EPI					.330		.195	
2	.225	.215	.235	.211	.324		.176	
3	.200	.240	.261	.200	.383		.204	
5	.255	.258	.335	.239	.351		.227	
7	.275	.320	.352	.400	.387		.363	
9	.368	.530	.559	.550	.394		.453	
11	.690	.815	.713	.869	.395		.515	
13	.980	1.310	1.390	1.490	.435		.579	
OF					.313	1.590	.202	.221

	155	162	169	176	183	190	197	204
EPI	.083		.056		.055		.035	
2	.097		.060		.052		.035	
3	.055		.045		.053		.034	
5	.095		.055		.025		.011	
7	.266		.149		.157		.093	
9	.531		.456		.557		.502	
11	.561		.595		.665		.691	
13	.602		.634		.724		.713	
OF	.117		.070	.097	.097	.095	.053	.070

	211	218	225	232	239	245	253	260
EPI	.109		.125		.083		.123	
2	.080		.125		.094		.126	
3	.090		.130		.096		.123	
5	.120		.042		.035		.129	
7	.150		.152		.097		.019	
9	.490		.633		.677		.647	
11	.760		.806		.840		.964	
13	.860		.855		.887		.910	
OF	.140		.163	.120	.125	.129	.155	.111

	267	274	281	288	295	302	309	353
EPI	.100		.105		.157		.071	.050
2	.102		.110		.164		.075	.040
3	.100		.101		.159		.073	.039
5	.104		.103		.168		.083	.062
7	.135		.111		.179		.080	.109
9	.719		.696		.197		.097	.179
11	.903		.927		.764		.093	.400
13	.963		.962		1.200		.077	.659
OF	.137	.122	.128	.190	.164	.133	.046	

LAKE 302N Chl-a (ug/L) 1973

DEPTH(m)	DAY #							
	024	052	080	107	127	135	141	148
EPI					6.2		4.3	
2	2.4	1.1	.9	6.6	9.4		6.5	
3	3.7	.9	1.0	7.0	9.4		8.9	
5	1.7	1.0	.6	6.5	6.9		13.4	
7	1.9	1.3	.6	3.3	4.8		6.7	
9	2.3	1.8	1.1	4.3	1.8		5.6	
11	4.0	4.5	2.5	6.5	2.9		4.1	
13	7.4	9.1	7.1	7.6	3.0		4.5	
OF								

	155	162	169	176	183	190	197	204
EPI	2.9		3.9		2.7		4.0	
2	2.9		3.8		2.7		4.2	
3	3.3		3.9		3.7		3.8	
5	6.3		7.5		5.9		5.9	
7	10.7		11.0		11.1		9.5	
9	5.7		3.9		47.9		90.5	
11	3.5		6.9		18.3		47.5	
13	6.5		12.1		19.9		46.2	
OF								

	211	218	225	232	239	246	253	260
EPI	4.9		3.7		3.2		3.9	
2	4.8		3.4		3.4		3.6	
3	4.9		3.5		3.3		4.0	
5	5.1		5.6		10.6		4.4	
7	5.5		8.5		14.2		30.7	
9	17.0		110.0		53.6		55.3	
11	78.5		129.0		59.0		86.8	
13	77.2		117.0		55.6		80.0	
OF								

	267	274	281	288	295	302	309	353
EPI	5.9		5.5		11.2		17.9	19.4
2	4.3		5.0		11.0		17.2	6.1
3	5.1		5.7		12.0		17.7	4.0
5	4.5		4.5		6.3		16.7	3.4
7	5.9		3.8		6.0		15.9	2.4
9	45.1		37.7		4.1		17.3	2.8
11	70.7		41.1		26.6		14.4	2.5
13	68.5		44.8		37.2		15.3	5.2
OF								

LAKE 302N Colour (abs435nm) 197

DEPTH(m)	DAY #							
	024	052	080	107	127	136	141	149
EPI								
2	.048	.054	.056	.045				
3	.050	.051	.052	.043				
5	.042	.056	.052	.049				
7	.043	.055	.052	.057				
9	.053	.063	.066	.072				
11	.082	.124	.083	.119				
13	.168	.309	.200	.352				
OF								

	155	162	169	176	183	190	197	204
EPI								
2								
3								
5								
7								
9								
11								
13								
OF								

	211	218	225	232	239	246	253	260
EPI								
2								
3								
5								
7								
9								
11								
13								
OF								

	267	274	281	288	295	302	309	453
EPI								
2								
3								
5								
7								
9								
11								
13								
OF								

Appendix 6

Lake 302 north basin 1974 water chemistry data

LAKE 302N Temp (C) 1974

DEPTH(m) DAY #

	023	057	092	114	121	129	135	143
EPI	2.70		1.00		4.32			
2	3.15	3.93	3.00		4.37			
3	3.90	4.03	3.70		4.38			
5	4.10	4.13	4.12		4.33			
7	4.20	4.12	4.20		4.27			
9	4.35	4.12	4.24		4.37			
11	4.55	4.68	4.56		4.52			
13	4.85	5.01	4.90		4.98			
OF						5.20	10.00	12.58

	149	156	164	171	179	194	192	199
EPI		18.72				21.75		
2		18.20				21.77		
3		14.10				21.05		
5		7.60				10.47		
7		6.10				7.29		
9		5.70				5.99		
11		5.58				5.69		
13		5.53				5.59		
OF	18.00	18.65	15.40	18.00	26.00	21.72	19.90	22.70

	205	212	220	225	227	238	247	253
EPI		19.90				17.30		
2		19.80				17.36		
3		19.80				17.32		
5		14.35				17.03		
7		7.95				9.21		
9		6.20				6.65		
11		5.83				6.10		
13		5.80				5.98		
OF	21.20	19.79			18.00		14.00	13.50

	255	262	268	276	290	289	295	302
EPI			11.40				5.98	
2			11.40				5.98	
3			11.40				5.93	
5			11.40				5.98	
7			11.39				5.98	
9			7.30				5.92	
11			6.40				5.92	
13			6.22				5.90	
OF	12.00	13.00	11.00		6.50	6.20	5.00	7.00

	308	323	343
EPI	4.90	2.29	
2	4.90	2.40	
3	4.90	2.48	
5	4.90	2.85	
7	4.90	3.17	
9	4.90	3.34	
11	4.90	3.51	
13	4.90	3.67	
OF	3.20		

LAKE 302N Cond (uS/cm) 1974

DEPTH(m) DAY #

	023	057	092	114	121	128	135	143
EPI			22		21			
2	22	23	22		21			
3	22	22	22		23			
5	22	22	22		23			
7	21	23	22		23			
9	22	23	25		23			
11	26	23	27		27			
13	48	41	68		61			
OF						23	19	19

	149	156	164	171	179	184	192	199
EPI		19				19		
2		19				17		
3		19				17		
5		20				18		
7		21				20		
9		22				22		
11		23				22		
13		24				25		
OF	6	19	19	19	19	18	19	19

	205	212	220	225	227	239	247	253
EPI		18				19		
2		18				19		
3		19				19		
5		18				18		
7		20				21		
9		24				29		
11		58				64		
13		152				95		
OF	18	19			21		20	21

	255	262	268	276	290	289	296	302
EPI			19				23	
2			19				23	
3			19				23	
5			19				23	
7			19				23	
9			44				23	
11			94				23	
13			111				24	
OF	17	19	19		23	24	23	22

	309	323	343
EPI	22	21	23
2	22	21	23
3	22	22	24
5	23	22	23
7	23	22	23
9	23	23	24
11	23	22	25
13	23	24	37
OF	21		

LAKE 302N pH 1974

DEPTH(m) DAY #

	023	057	092	114	121	128	135	14?
EPI			5.97		5.59			
2	6.05	5.80	5.71		5.54			
3	6.03	5.73	5.68		5.54			
5	5.99	5.71	5.62		5.52			
7	5.81	5.71	5.58		5.49			
9	5.73	5.70	5.60		5.53			
11	5.98	5.69	5.90		5.72			
13	6.42	6.20	6.31		6.21			
OF						5.99	6.13	6.18

	149	156	164	171	179	184	192	19?
EPI		6.24				6.49		
2		6.28				6.55		
3		6.31				6.54		
5		6.15				6.53		
7		5.98				5.80		
9		5.71				5.68		
11		5.63				5.75		
13		5.70				5.86		
OF	6.65	5.99	6.32	7.15	6.60	6.17	6.58	6.40

	205	212	220	225	227	233	247	253
EPI		6.57				6.93		
2		6.53				6.90		
3		6.54				6.85		
5		6.55				6.82		
7		5.86				6.18		
9		5.71				6.01		
11		5.81				6.03		
13		4.74				5.90		
OF	6.01	5.59			6.27		6.17	6.72

	255	262	268	276	280	289	296	302
EPI			6.50				6.51	
2			6.43				6.57	
3			6.42				6.50	
5			6.46				6.54	
7			6.39				6.56	
9			6.19				6.55	
11			6.01				6.56	
13			5.91				6.54	
OF	6.22	6.18	6.47		6.16	6.16	6.46	6.40

	309	324	343
EPI	6.61	6.67	6.57
2	6.55	6.63	6.47
3	6.52	6.55	6.33
5	6.49	6.51	6.28
7	6.46	6.49	6.24
9	6.39	6.47	6.13
11	6.39	6.33	6.09
13	6.40	6.25	6.10
OF	6.41		

LAKE 302N O2 (mg/L) 1974

DEPTH(m) DAY #

	023	057	092	114	121	124	135	14
EPI			4.89					
2	7.49	5.95	5.10		5.19			
3	8.05	5.60	4.59		5.14			
5	6.99	5.15	3.83		4.12			
7	6.60	4.95	2.50		2.49			
9	5.00	4.90	2.15		.35			
11	.30	2.55	.60		< .01			
13	< .01	.90	< .01		< .01			
OF								

	149	156	164	171	179	194	19	20
EPI		9.44				8.13		
2		9.53				8.10		
3		11.11				8.31		
5		9.91				12.05		
7		6.38				5.26		
9						1.12		
11		2.19				.15		
13		.10				< .01		
OF								

	205	212	220	225	227	238	247	25
EPI		8.38				9.10		
2		9.48				9.20		
3		8.32				9.16		
5		11.96				9.12		
7		4.00				3.18		
9		.15				< .01		
11		< .01				< .01		
13		< .01				< .01		
OF								

	255	262	268	275	280	289	296	30
EPI			9.36				11.30	
2			9.29				10.92	
3			9.30				10.50	
5			9.31				10.65	
7			8.50				10.50	
9			.20				11.00	
11			< .01				10.90	
13			< .01				11.00	
OF								

	308	323	343
EPI	10.12	12.65	11.51
2	10.01	12.89	11.35
3	9.90	12.38	10.95
5	10.40	12.06	10.51
7	10.70	11.48	9.85
9	11.50	11.42	9.45
11	11.41	10.60	8.35
13	11.11	8.72	4.80
OF			

LAKE 302N NH3-N (ug/L) 1974

DEPTH(m) DAY #

	023	057	092	114	121	128	135	142
EPI			16		18			
2	135	20	18		14			
3	113	10	15		43			
5	92	12	15		32			
7	93	32	26		45			
9	65	17	18		130			
11	413	154	390		420			
13	1050	1071	2612		2271			
OF						36	21	9

	149	156	164	171	179	184	192	199
EPI		5				9		
2		3				13		
3		18				9		
5		20				6		
7		55				29		
9		125				194		
11		237				390		
13		410				618		
OF	13	17	17	26	32	20	40	24

	205	212	220	225	227	238	247	254
EPI		16				19		
2		9				18		
3		10				12		
5		19				17		
7		18				15		
9		357				663		
11		3300				3771		
13		13520				5913		
OF	24	58			39		9	10

	255	262	268	275	280	289	296	303
EPI			6				128	
2			12				220	
3			10				209	
5			6				223	
7			20				240	
9			1354				191	
11			6509				201	
13			7820				204	
OF		10	30	63	248	238	193	131

	308	323	343
EPI	144	109	159
2	143	130	163
3	149	119	159
5	149	126	181
7	150	144	135
9	149	155	232
11	153	189	461
13	159	311	640
OF	127		

LAKE 302N NO3-N (ug/L.) 1974

DEPTH(m)	DAY #							
	023	057	092	114	121	128	135	14
EPI			215		257			
2	132	254	285		258			
3	128	273	291		194			
5	186	258	296		276			
7	190	252	305		276			
9	280	255	294		172			
11	157	231	112		8			
13	11	103	12		2			
OF						166	133	87

	149	156	164	171	179	194	192	199
EPI		24				1		
2		26				1		
3		38				1		
5		73				19		
7		133				132		
9		118				104		
11		101				3		
13		64				1		
OF	47	21	10	41	22	13	18	7

	205	212	220	225	227	239	247	253
EPI		1				7		
2		1				7		
3		1				7		
5		1				9		
7		26				8		
9		2				10		
11		7				10		
13		10				9		
OF	7	20			17		4	13

	255	262	268	276	290	289	296	302
EPI			2				5	
2			2				9	
3			2				9	
5			3				10	
7			2				10	
9			14				9	
11			21				9	
13			23				10	
OF		2	6	16	12	15	19	21

	303	323	343
EPI	15	15	19
2	13	13	19
3	13	15	19
5	15	16	20
7	15	15	25
9	13	12	34
11	15	16	35
13	15	18	22
OF	19		

LAKE 302N TDN (ug/L) 1974

DEPTH(m) DAY #

	023	057	092	118	121	128	135	144
EPI			396		412			
2	365	395	464		353			
3	297	465	452		328			
5	401	332	496		431			
7	374	478	539		459			
9	401	415	452		539			
11	729	485	857		557			
13	1294	1225	2491		2060			
OF						283	327	260

	149	156	164	171	179	184	192	199
EPI		198				242		
2		224				229		
3		238				230		
5		257				259		
7		417				395		
9		481				577		
11		471				720		
13		693				1016		
OF	200	227	241	333	302	247	515	333

	205	212	220	225	227	238	247	253
EPI		253				230		
2		275				256		
3		250				246		
5		232				294		
7		287				279		
9		711				947		
11		4459				4612		
13		17659				6716		
OF	337	348			296		255	232

	255	262	269	276	280	289	295	302
EPI			247				481	
2			247				519	
3			249				525	
5			242				519	
7			264				515	
9			1735				525	
11			7050				525	
13			9000				534	
OF		240	294	261	452	528	494	355

	308	323	343
EPI	466	410	439
2	507	390	443
3	450	374	474
5	458	361	487
7	466	390	504
9	462	394	514
11	497	455	819
13	466	560	970
OF	466		

LAKE 302N Susp N (ug/L) 1974

DEPTH(m) DAY #

	021	057	092	114	121	129	135	143
EPI			80		207			
2	74	49	84		102			
3	41	68	90		60			
5	56	49	97		60			
7	45	91	74		57			
9	63	99	95		88			
11	91	129	163		155			
13	283	182	331		187			
OF						207	72	144

	149	156	164	171	179	184	192	199
EPI		90				99		
2		79				91		
3		93				112		
5		179				140		
7		105				140		
9		79				88		
11		105				396		
13		254				424		
OF	132	96	125	100	147	116	90	53

	205	212	220	225	227	239	247	253
EPI		126				129		
2		102				104		
3		84				107		
5		84				215		
7		112				131		
9		158				194		
11		235				242		
13		613				253		
OF	102	200			332		104	104

	255	262	269	276	280	289	296	302
EPI			97				200	
2			62				169	
3			114				190	
5			114				150	
7			111				204	
9			260				165	
11			221				185	
13			232				179	
OF		17	93	135		180	179	240

	308	323	343
EPI	254	348	190
2	215	326	175
3	236	240	179
5	204	175	122
7	243		122
9	222	140	150
11	235		165
13	215	247	243
OF	200		

LAKE 302N TDP (ug/L) 1974

DEPTH(m) DAY #

	023	057	092	114	121	128	135	143
EPI			3		5			
2	10	10	9		5			
3	10	10	9		4			
5	9	9	9		5			
7	9	6	9		9			
9	10	7	9		9			
11	18	16	43		30			
13	119	200	514		406			
OF						5	6	4

	149	156	164	171	179	184	193	199
EPI		4				3		
2		4				3		
3		4				3		
5		6				4		
7		6				5		
9		7				7		
11		11				9		
13		42				21		
OF	5	6	5	6	6	3	4	4

	205	212	220	225	227	238	247	253
EPI		3				3		
2		3				3		
3		2				3		
5		3				4		
7		5				6		
9		8				17		
11		359				521		
13		1770				873		
OF	4	4			6		3	3

	255	262	269	276	280	289	295	303
EPI			4				9	
2			4				9	
3			4				9	
5			4				9	
7			4				9	
9			45				10	
11			1027				9	
13			1330				10	
OF		4	4	5	7	12	9	13

	308	323	343
EPI	9	10	7
2	9	10	10
3	10	9	8
5	9	9	9
7	10	8	11
9	10	7	3
11	8	7	16
13	10	9	20
OF	11		

LAKE 302W Susp P (ug/L) 1974

DEPTH(m) DAY #

	023	057	092	114	121	128	135	143
EPI			7		10			
2	9	5	5		11			
3	6	4	4		9			
5	6	4	4		10			
7	7	9	6		9			
9	11	9	10		17			
11	26	23	45		61			
13	75	43	49		47			
OF						11		20

	149	156	164	171	179	184	192	199
EPI		5				5		
2		4				6		
3		5				5		
5		16				11		
7		11				13		
9		11				15		
11		17				31		
13		52				57		
OF	8	9	10	7	12	7	8	7

	205	212	220	225	227	239	247	253
EPI		6				6		
2		6				6		
3		6				6		
5		8				9		
7		12				12		
9		29				31		
11		58				53		
13		123				70		
OF	8	15			31		5	6

	255	262	268	276	284	289	296	302
EPI			6				27	
2			6				30	
3			5				25	
5			5				28	
7			6				26	
9			83				28	
11			55				29	
13			61				29	
OF		4	5	16	35	36	21	36

	308	323	343
EPI	28	27	20
2	28	25	23
3	29	24	22
5	26	22	17
7	23	20	11
9	85	19	20
11	26	23	24
13	25	38	60
OF	24		

LAKE 302N DIC (uM/L) 1974

DEPTH(m) DAY #

	023	057	092	114	121	129	135	143
EPI			207		243			
2	206	206	229		300			
3	199	210	235		231			
5	237	226	243		347			
7	246	221	258		381			
9	282	255	278		472			
11	486	329	402		605			
13	739	652	963		1183			
OF						122	282	97

	149	156	164	171	179	194	19[illegible]	199
EPI		57				57		
2		73				59		
3		58				57		
5		133				66		
7		250				252		
9		296				369		
11		386				431		
13		462				513		
OF	61	86	73	130	115	79	112	113

	205	212	220	225	227	238	247	[illegible]
EPI		55				50		
2		55				49		
3		59				62		
5		58				58		
7		302				306		
9		419				479		
11		564				570		
13		645				614		
OF	102	134			109		111	[illegible]

	255	262	268	276	280	289	296	[illegible]
EPI			103				91	
2			99				90	
3			104				92	
5			97				94	
7			121				82	
9			601				82	
11			736				81	
13			739				96	
OF	107	133	115		114	147	89	7[illegible]

	308	323	343
EPI	61	85	90
2	73	[illegible]	104
3	71	[illegible]	111
5	85	[illegible]	119
7	90	[illegible]	133
9	105	[illegible]	199
11	105	[illegible]	[illegible]
13	104	159	465
OF	50		

LAKE 302N DOC (uM/L) 1974

DEPTH(m)	DAY #							
	023	057	092	114	121	128	135	14
EPI			533		486			
2	351	452	464		501			
3	332	447	474		371			
5	309	409	566		515			
7	314	464	463		497			
9	358	414	453		474			
11	401	472	533		492			
13	654	546	832					
OF							398	520

	149	156	154	171	179	184	192	199
EPI						407		
2		406				424		
3		437				365		
5						421		
7		401				430		
9						425		
11		450				457		
13		424				485		
OF	167	430	465			413	592	499

	205	212	220	225	227	239	247	253
EPI		256				479		
2		163				470		
3		178				472		
5		237				491		
7		303				469		
9		261				492		
11		452				581		
13		456				639		
OF	498	240			412		442	

	255	262	268	276	280	289	296	302
EPI			345				297	
2			277				317	
3			254				345	
5			373				353	
7			314				352	
9			376				303	
11			739				346	
13			682				363	
OF		317	328	374	326	290	347	339

	309	323	343
EPI	259	453	430
2	315	403	394
3	323	354	397
5	303	379	335
7	291	402	434
9	237	419	398
11	296	354	339
13	257	378	343
OF	309		

LAKE 302N Susp C (ug/L) 1974

DEPTH(m) DAY #

	023	057	092	114	121	123	135	147
EPI			430		720			
2	630	330	490		790			
3	330	420	570		560			
5	400	420	540		630			
7	420	590	570		503			
9	550	610	630		960			
11	590	790	1060		1180			
13	1540	1230	2220		1330			
OF						840	760	1600

	149	156	164	171	179	184	192	199
EPI		730				940		
2		820				850		
3		780				910		
5		1280				1230		
7		990				990		
9		720				900		
11		990				1700		
13		2150				1850		
OF	1170	1020	1190	920	1040	790	970	490

	205	212	220	225	227	238	247	253
EPI		1030				990		
2		940				900		
3		950				920		
5		1130				1690		
7		1110				930		
9		1250				1490		
11		1500				1600		
13		3960				1610		
OF	790	2670			3490		760	790

	255	262	268	276	280	289	296	302
EPI			820				1150	
2			790				1030	
3			820				1110	
5			900				1020	
7			820				1230	
9			1690				1110	
11			1690				1140	
13			1510				1370	
OF		100	840	1350	1370	1280	1370	1460

	308	323	343
EPI	1600	1970	1060
2	1390	2080	1170
3	1400	1430	1093
5	1400	1180	930
7	1300		760
9	1350		1130
11	1320		1030
13	1410	1560	1970
OF	1310		

LAKE 302N CHR-C (uM/L) 1974

DEPTH(m) DAY #

	023	057	092	114	121	129	135	144
EPI			58		1			
2	1	2	4		1			
3	1	1	1		1			
5	1	< 1	1		1			
7	1	< 1	1		1			
9	1	1	1		1			
11	1	2	37		52			
13	90	159	523		498			
OF								

	149	156	164	171	179	184	192	199
EPI		1				1		
2		1				1		
3		1				1		
5		1				1		
7		1				1		
9		1				1		
11		1				1		
13		1				70		
OF		1				1		

	205	212	220	225	227	233	247	253
EPI		1				1		
2		1				1		
3		1				1		
5		1				1		
7		1				1		
9		4				30		
11		102				122		
13		162				172		
OF		1						

	255	262	263	276	280	289	295	311
EPI			1					
2			1					
3			1					
5			1					
7			1					
9			89					
11			257					
13			286					
OF			2					

	309	324	343
EPI		1	1
2		1	1
3		1	1
5		1	1
7		1	1
9		1	1
11		2	1
13		5	1
OF			

LAKE 302N Cl (mg/L) 1974

DEPTH(m) DAY #

	023	057	092	114	121	128	135	143
EPI			2.0		1.8			
2	1.8	2.0	1.8		1.8			
3	1.8	1.8	1.8		1.4			
5	2.2	1.8	1.8		1.8			
7	2.0	2.0	1.8		1.8			
9	3.8	1.8	1.8		1.8			
11	2.0	1.8	2.0		1.8			
13	2.2	2.0	2.4		2.2			
OF						1.4	1.4	1.4

	149	156	164	171	179	194	192	199
EPI		1.2				1.3		
2		1.6				1.3		
3		1.2				1.3		
5		1.4				1.4		
7		5.6				1.5		
9		1.6				1.5		
11		1.4				1.5		
13		1.8				1.5		
OF	1.4	1.4	1.2	1.4	1.2	1.3	1.4	1.2

	205	212	220	225	227	239	247	253
EPI		1.2				1.4		
2		1.2				1.2		
3		1.4				2.2		
5		1.4				1.4		
7		1.4				1.6		
9		2.2				3.0		
11		9.3				10.6		
13		42.2				14.6		
OF	1.4	1.4			1.2		1.2	1.6

	255	262	269	276	290	289	296	302
EPI			1.4				2.6	
2			1.4				2.6	
3			1.6				2.8	
5			1.8				2.6	
7			3.4				2.6	
9			5.2				2.4	
11			16.0				2.4	
13			19.9				2.4	
OF		1.4	1.6	1.9	2.6	2.6	2.4	2.4

	308	323	343
EPI	2.6	2.4	3.5
2	2.6	2.2	3.2
3	2.4	2.4	2.0
5	2.4	2.4	2.2
7	2.4	2.4	2.2
9	2.4	3.0	2.2
11	2.4	2.4	2.8
13	2.6	2.5	2.4
OF	3.0		

LAKE 302N SO4 (mg/L) 1974

DEPTH(m) DAY #

	021	057	092	114	121	123	135	141
EPI			2.9		2.9			
2	3.0	3.8	3.0		3.0			
3	3.0	3.2	3.0		2.9			
5	3.0	3.6	3.0		3.2			
7	3.0	3.6	3.0		3.0			
9	5.2	3.6	2.8		3.0			
11	2.9	3.4	2.6		2.6			
13	1.2	2.0	1.4		1.2			
OF						3.4	3.6	3.6

	149	156	164	171	179	184	192	199
EPI		3.4				3.3		
2		3.4				3.3		
3		3.4				3.4		
5		3.4				3.7		
7		3.4				3.3		
9		4.0				3.1		
11		3.4				3.0		
13		3.2				2.8		
OF	3.4	3.4	3.2	3.2	3.4	3.3	3.4	3.4

	205	212	220	225	227	238	247	253
EPI		3.2				4.2		
2		3.2				3.6		
3		3.2				3.6		
5		3.0				3.8		
7		3.0				5.2		
9		2.8				5.2		
11		2.0				1.8		
13		9.2				4.0		
OF	3.2	3.6			3.8		3.4	4.0

	255	262	269	276	280	289	295	302
EPI			3.0				3.2	
2			3.2				3.6	
3			3.0				4.4	
5			3.0				3.0	
7			2.9				3.0	
9			2.4				3.4	
11			2.2				3.4	
13			1.2				3.4	
OF		3.0	3.0	3.0	3.0	3.0	3.0	3.0

	309	323	343
EPI	2.8	3.6	5.8
2	3.0	3.2	7.0
3	3.2	3.0	8.6
5	4.0	3.0	3.0
7	4.0	3.0	2.6
9	3.4	3.0	2.4
11	3.2	3.0	7.2
13	3.2	3.0	2.2
OF	3.8		

LAKE 302N Na (mg/l.) 1974

DEPTH(m) DAY #

	023	057	092	114	121	128	135	14:
EPI			.70		.70			
2	.71	.71	.70		.73			
3	.75	.71	.71		.75			
5	.71	.76	.71		.77			
7	.77	.79	.81		.80			
9	.74	.78	.74		.76			
11	.72	.74	.69		.79			
13	.74	.69	.71		.81			
OF						.73	.81	.69

	149	156	164	171	179	184	192	199
EPI		.78				.7[illegible]		
2		.75				.78		
3		.75				.78		
5		.76				.75		
7		.79				.79		
9		.79				.77		
11		.78				.77		
13		.78				.78		
OF	.80	.74	.72	.69	.77	.78	.80	.67

	205	212	220	225	227	239	247	253
EPI		.70				.70		
2		.75				.76		
3		.69				.79		
5		.78				.77		
7		.71				.81		
9		.69				.82		
11		.73				.86		
13		.82				.84		
OF	.77	.67			.68		.72	.67

	255	262	268	275	280	289	296	302
EPI			.69				.79	
2			.74				.81	
3			.83				.81	
5			.82				.78	
7			.82				.75	
9			.85				.77	
11			.86				.82	
13			.92				.76	
OF		.80	.74	.72	.70	.75	.74	.83

	309	323	343
EPI	.70	.75	.75
2	.75	.71	.76
3	.76	.71	.75
5	.72	.70	.75
7	.72	.74	.76
9	.73	.84	.74
11	.70	.81	.76
13	.73	.88	.79
OF	.71		

LAKE 302N K (mg/L) 1974

DEPTH(m) DAY #

	023	057	092	114	121	129	135	143
EPI					.39			
2					.40			
3					.39			
5					.40			
7					.43			
9					.44			
11					.44			
13					.52			
OF						.42	.40	.34

	149	156	164	171	179	184	192	199
EPI		.39				.50		
2		.35				.49		
3		.36				.49		
5		.37				.50		
7		.42				.54		
9		.37				.52		
11		.39				.53		
13		.41				.56		
OF	.23	.37	.40	.38	.47	.50	.53	.40

	205	212	220	225	227	239	247	253
EPI		.42				.34		
2		.43				.34		
3		.40				.34		
5		.43				.34		
7		.45				.35		
9		.47				.39		
11		.52				.42		
13		.36				.39		
OF	.45	.39			.39		.34	.34

	255	262	268	276	290	289	296	302
EPI			.39				.44	
2			.39				.43	
3			.39				.44	
5			.40				.44	
7			.39				.43	
9			.50				.42	
11			.53				.44	
13			.51				.42	
OF		.34	.42	.44	.46	.45	.45	.46

	304	324	343
EPI	.30	.41	.37
2	.31	.37	.44
3	.30	.32	.33
5	.30	.32	.32
7	.30	.31	.32
9	.32	.32	.35
11	.30	.31	.34
13	.31	.32	.35
OF	.31		

LAKE 302N Ca (mg/L) 1974

DEPTH(m) DAY #

	023	057	092	114	121	123	135	141
EPI					1.57			
2					1.65			
3					1.60			
5					1.67			
7					1.65			
9					1.62			
11					1.94			
13					2.66			
OF						1.51	1.49	1.51

	149	156	164	171	179	184	192	199
EPI		1.60				1.52		
2		1.62				1.59		
3		1.54				1.59		
5		1.68				1.65		
7		1.76				1.70		
9		1.72				1.77		
11		1.74				1.63		
13		1.76				1.95		
OF	1.56	1.51	1.59	1.55	1.57	1.60	1.61	1.57

	205	212	220	225	227	238	247	253
EPI		1.61				1.55		
2		1.65				1.57		
3		1.52				1.53		
5		1.62				1.52		
7		1.76				1.62		
9		1.76				2.10		
11		1.96				2.17		
13		2.11				2.36		
OF	1.68	1.64			1.64		1.54	1.59

	255	262	268	276	280	289	296	302
EPI			1.55				1.58	
2			1.50				1.58	
3			1.57				1.60	
5			1.54				1.59	
7			1.64				1.59	
9			3.13				1.60	
11			2.48				1.61	
13			2.39				1.60	
OF		1.51	1.61	1.60	1.62	1.64	1.64	1.63

	308	323	343
EPI	1.71	1.71	1.70
2	1.71	1.69	1.69
3	1.72	1.69	1.69
5	1.73	1.70	1.72
7	1.74	1.71	1.74
9	1.71	1.69	1.73
11	1.70	1.72	1.94
13	1.75	1.74	1.84
OF	1.76		

LAKE 302N Mg (mg/l.) 1974

DEPTH(m) DAY #

	023	057	092	114	121	128	135	143
EPI					.59			
2					.62			
3					.60			
5					.62			
7					.62			
9					.62			
11					.62			
13					.70			
OF						.56	.55	.55

	149	156	164	171	179	194	192	199
EPI		.55				.54		
2		.56				.54		
3		.55				.54		
5		.57				.54		
7		.58				.56		
9		.57				.57		
11		.58				.58		
13		.59				.59		
OF	.54	.55	.54	.56	.55	.55	.53	.55

	205	212	220	225	227	239	247	253
EPI		.64				.59		
2		.65				.59		
3		.64				.59		
5		.63				.60		
7		.66				.61		
9		.66				.62		
11		.70				.65		
13		.75				.66		
OF	.65	.63			.61		.60	.57

	255	262	268	276	290	299	296	302
EPI			.59				.61	
2			.59				.61	
3			.60				.61	
5			.60				.61	
7			.60				.61	
9			.62				.62	
11			.66				.61	
13			.66				.61	
OF		.58	.61	.61	.60	.63	.63	.63

	308	323	343
EPI	.60	.60	.59
2	.61	.60	.59
3	.61	.59	.60
5	.61	.60	.60
7	.60	.59	.61
9	.60	.60	.62
11	.60	.60	.63
13	.61	.60	.64
OF	.61		

LAKE 302N Fe (mg/L) 1974

DEPTH(m) DAY #

	023	057	092	114	121	128	145	184
EPI					.05			
2					.06			
3					.07			
5					.07			
7					.07			
9					.13			
11					1.10			
13					6.70			
OF						.10	.15	.10

	149	156	164	171	179	194	192	199
EPI		.04				.01		
2		.07				.01		
3		.07				.01		
5		.08				.01		
7		.17				.03		
9		.21				.28		
11		.40				.54		
13		.67				2.29		
OF	.04	.06	.03	.04	.02	.01	.03	.10

	205	212	220	225	227	233	247	253
EPI		.04				.04		
2		.04				.02		
3		.04				.02		
5		.05				.01		
7		.15				.16		
9		.36				1.31		
11		2.26				2.51		
13		2.67				2.81		
OF	.07	.07			.06		.02	.05

	255	262	268	275	290	289	295	302
EPI			.03				.03	
2			.02				.03	
3			.02				.02	
5			.02				.02	
7			.04				.03	
9			1.70				.02	
11			3.42				.03	
13			3.68				.04	
OF		.03	.02	.03	.02	.03	.02	.01

	308	323	343
EPI	.03	.02	.01
2	.02	.03	.01
3	.03	.03	.01
5	.03	.02	.01
7	.04	.03	.02
9	.03	.02	.04
11	.03	.02	.14
13	.03	.05	.29
OF	.04		

LAKE 302N SRSi (mg/l.) 1974

DEPTH(m)	DAY #							
	023	057	092	114	121	128	135	143
EPI			.078		.259			
2	.091	.143	.149		.249			
3	.108	.151	.165		.374			
5	.120	.176	.214		.302			
7	.141	.164	.256		.335			
9	.239	.168	.269		.495			
11	.592	.394	.561		.617			
13	.925	1.000	2.040		1.860			
OF						.322	.340	.232

	149	156	164	171	179	194	192	199
EPI		.085				.030		
2		.087				.020		
3		.074				.020		
5		.022				.010		
7		.198				.020		
9		.446				.330		
11		.518				.570		
13		.628				.720		
OF	.170	.096	.075	.106	.096	.060	.092	.086

	205	212	220	225	227	235	247	253
EPI		.039				.109		
2		.033				.109		
3		.042				.114		
5		.040				.114		
7		.126				.195		
9		.414				.493		
11		.673				.718		
13		.848				.829		
OF	.083	.140			.158		.175	.106

	255	262	268	276	290	289	296	302
EPI			.106				.123	
2			.102				.124	
3			.102				.112	
5			.112				.123	
7			.140				.124	
9			.592				.131	
11			.892				.128	
13			.925				.119	
OF		.112	.152	.183	.151	.133	.103	.103

	308	323	343
EPI	.072	.041	.023
2	.071	.025	.064
3	.072	.039	.035
5	.086	.043	.049
7	.104	.041	.105
9	.078	.052	.175
11	.074	.066	.311
13	.071	.189	.496
OF	.063		

LAKE 302N Chl-a (ug/L) 1974

DEPTH(m) DAY #

	023	057	092	114	121	129	135	141
EPI			1.3	.6	2.9		6.8	4.7
2	1.8	1.0	1.3	1.3	3.5			
3	1.6	.8	.9	1.5	1.5			
5	1.5	.7	.6	1.2	1.7			
7	1.2	.8	.4		1.4			
9	1.5	.8	.7		1.6			
11	4.9	1.9	2.9		3.6			
13	5.0	4.8	11.1		8.9			
OF								

	189	156	164	171	179	184	192	199
EPI	4.5	5.7	5.0	3.2	2.4	3.1	3.2	3.0
2		3.2				2.8		
3		3.7				3.5		
5		16.5				17.6		
7		16.2				17.4		
9		5.2				8.2		
11		4.7				19.5		
13		18.6				98.0		
OF								

	205	212	220	225	237	238	247	253
EPI	2.9	3.1	2.8	3.3		9.5	12.4	6.7
2		3.3				10.3		
3		3.1				11.7		
5		5.5				33.0		
7		9.6				8.9		
9		14.8				54.3		
11		62.4				98.0		
13		45.1				93.0		
OF								

	255	262	268	276	280	299	296	302
EPI		3.5	5.6	13.3	13.1	13.6	25.5	22.7
2			4.4				19.5	
3			4.9				23.4	
5			5.1				20.0	
7			5.6				19.1	
9			96.6				20.0	
11			107.0				17.9	
13			104.0				17.8	
OF								

	308	323	343
EPI	31.2	51.5	19.7
2	27.3	49.1	18.1
3	30.5	38.5	18.1
5	27.7	20.4	11.5
7	29.1	15.6	9.1
9	29.4	13.0	8.6
11	26.2	12.2	9.3
13	24.2	14.8	15.8
OF			

Appendix 7

Lake 302 north basin 1975 water chemistry data

LAKE 302N Temp (C) 1975

DEPTH(m) DAY #

	021	063	092	134	141	148	155	162
EPI				12.39		17.77		16.70
2						17.63		
3								
4						10.55		
5								
6						6.12		
7								
9						4.75		
11						4.53		
13						4.57		
OF				12.39	16.40	17.77	17.00	18.00

	169	176	183	190	198	204	211	219
EPI		21.68		22.08		22.95		21.68
2		20.63				22.97		
3								
4		16.48				20.74		
5								
6		7.56				9.42		
7								
9		5.12				5.59		
11		4.89				4.99		
13		4.84				4.89		
OF		23.50	24.50	21.50	25.00	22.50	26.00	

	225	232	246	253	260	267	274	281
EPI		18.90	17.01		13.51		11.69	
2		18.89			13.51			
3								
4		18.89			13.51			
5								
6		10.66			13.10			
7								
9		5.89			6.72			
11		5.31			5.53			
13		5.16			5.28			
OF	19.50		14.50	14.50		9.40		10.70

	288	295	302	309	316
EPI	10.39		6.70		4.89
2	10.44				5.03
3					
4	10.44				5.09
5					
6	10.44				5.11
7					
9	7.43				5.13
11	5.99				5.13
13	5.83				
OF	6.50	6.80	4.00	6.00	

LAKE 302N Cond (uS/cm) 1975

DEPTH(m) DAY #

	021	063	092	134	141	148	155	162
EPI	30	23	30	19				17
2	26	25	23			18		
3	25	25	23					
4						19		
5	26	25	23					
6						21		
7	27	25	24					
9	27	25	24			24		
11	31	35	34			27		
13	93	58	71			33		
OF					18	23	20	20

	169	176	183	190	198	204	211	219
EPI				19				18
2		18				19		
3								
4		18				19		
5								
6		20				21		
7								
9		24				42		
11		55				75		
13		72				82		
OF	20	18	17	19	18	19	19	

	225	232	246	253	260	267	274	281
EPI			19				19	
2		19			19			
3								
4		19			19			
5								
6		22			19			
7								
9		53			52			
11		103			109			
13		140			116			
OF	19		20	20		20		22

	288	295	302	309	316
EPI			23		
2	19				22
3					
4	19				22
5					
6	19				22
7					
9	65				22
11	100				22
13	105				
OF	21	21	24	25	

LAKE 302N pH 1975

DEPTH(m)	DAY #							
	021	063	092	134	141	148	155	162
EPI	6.23	5.52	6.03	6.13				6.48
2	6.09	5.38	5.49			6.51		
3	5.93	5.36	5.41					
4						6.36		
5	5.94	5.29	5.33					
6						5.90		
7	5.67	5.27	5.28					
9	5.68	5.64	5.62			5.83		
11	6.03	6.28	6.24			5.89		
13	6.61	6.58	6.34			6.01		
OF					6.51	6.00	5.99	6.06

	169	176	183	190	198	204	211	218
EPI				6.31				6.51
2		6.46				6.41		
3								
4		6.23				6.29		
5								
6		6.00				6.00		
7								
9		5.72				6.18		
11		5.94				5.92		
13		5.82				5.88		
OF	5.88	6.25	6.10	6.41	6.19	6.31	6.40	

	225	232	246	253	260	267	274	281
EPI			6.31				6.10	
2		6.46			6.32			
3								
4		6.51			6.31			
5								
6		5.93			6.24			
7								
9		6.22			5.99			
11		5.71			5.79			
13		5.31			5.72			
OF	6.31		6.15	6.32		6.18		6.02

	288	295	302	309	316
EPI			6.03		
2	6.14				6.02
3					
4	6.10				5.95
5					
6	6.12				6.03
7					
9	6.21				5.94
11	6.00				5.97
13	5.98				
OF	5.99	5.98	5.94	5.96	

LAKE 302N O2 (mg/L) 1975

DEPTH(m)	DAY #							
	021	063	092	134	141	148	155	162
EPI	9.00	7.18	6.67					
2	8.60	6.99	6.10			8.89		
3	8.20	5.65	4.75					
4						11.14		
5	7.00	4.00	3.09					
6						6.75		
7	4.40	3.00	1.72					
9	.40	2.60	1.39			.90		
11	< .01	< .01	.17			< .01		
13	< .01	< .01	< .01			< .01		
OF								

	169	176	183	190	198	204	211	218
EPI								
2		8.36				7.68		
3								
4		9.23				8.92		
5								
6		9.30				6.95		
7								
9		.35				< .01		
11		< .01				< .01		
13		< .01				< .01		
OF								

	225	232	246	253	260	267	274	281
EPI								
2		8.60			9.18			
3								
4		8.55			9.18			
5								
6		4.88			8.81			
7								
9		< .01			< .01			
11		< .01			< .01			
13		< .01			< .01			
OF								

	288	295	302	309	316
EPI					
2	9.70				12.44
3					
4	9.66				11.81
5					
6	9.60				11.96
7					
9	< .01				12.10
11	< .01				11.98
13	< .01				
OF					

LAKE 302N NH3-N (ug/L) 1975

DEPTH(m)	DAY #							
	021	063	092	134	141	148	155	162
EPI	233	43	26	11		7		4
2	217	26	23			8		
3	206	15	30					
4						22		
5	217	16	22					
6						10		
7	149	32	30					
9	271	226	150			252		
11	753	832	758			566		
13	2860	1980	2812			714		
OF				6	5	99	42	64

	169	176	183	190	198	204	211	219
EPI		5		2		3		3
2		8				2		
3								
4		13				2		
5								
6		8				2		
7								
9		327				1410		
11		2790				4290		
13		4280				5050		
OF	44	12	5	2	8	9	4	

	225	232	246	253	260	267	274	281
EPI		2	2		5		14	
2		2			4			
3								
4		2			5			
5								
6		2			5			
7								
9		2170			2050			
11		7600			6960			
13		12000			9050			
OF	4		15	4		19		32

	288	295	302	309	316
EPI	30		260		174
2	33				181
3					
4	35				179
5					
6	39				178
7					
9	3500				187
11	7620				187
13	8080				
OF	51	27	5	114	

LAKE 302N NO3-N (ug/L) 1975

DEPTH(m)	DAY #							
	021	063	092	134	141	148	155	162
EPI	37	271	301	105		4		2
2	58	317	347			5		
3	86	374	391					
4						59		
5	104	413	424					
6						180		
7	273	459	468					
9	318	295	314			145		
11	4	16	43			5		
13	8	2	5			5		
OF				94	22	100	72	99

	169	176	183	190	198	204	211	219
EPI		7		1		1		1
2		5				1		
3								
4		5				1		
5								
6		36				23		
7								
9		5				5		
11		16				11		
13		12				13		
OF	75	3	4	1	2	1	1	

	225	232	246	253	260	267	274	281
EPI		1	3		3		1	
2		1			3			
3								
4		1			3			
5								
6		1			1			
7								
9		3			5			
11		4			7			
13		4			24			
OF	5		30	7		18		51

	288	295	302	309	316
EPI	1		4		9
2	1				7
3					
4	1				7
5					
6	1				7
7					
9	2				7
11	2				7
13	3				
OF	19	41	66	92	

LAKE 302W TDN (ug/L) 1975

DEPTH(m)	DAY #							
	021	063	092	134	141	148	155	162
EPI	564	555	586	357		322		232
2	522	549	563			285		
3	528	582	614					
4						361		
5	574	635	654					
6						412		
7	614	714	732					
9	778	797	875			635		
11	1166	1194	1174			871		
13	366	2630	3620			1220		
OF				371	276	486	345	376

	169	176	183	190	198	204	211	219
EPI		185		208		169		213
2		175				196		
3								
4		243				180		
5								
6		250				251		
7								
9		564				1730		
11		3430				5110		
13		5070				5430		
OF	355	232	220	208	230	227	264	

	225	232	246	253	260	267	274	281
EPI		208	137		182		363	
2		199			198			
3								
4		203			206			
5								
6		229			200			
7								
9		2530			2730			
11		8550			7940			
13		14000			9100			
OF	229		249	208		249		267

	289	295	302	309	316
EPI	220		522		511
2	237				426
3					
4	224				431
5					
6	234				431
7					
9	3310				426
11	6700				421
13	6690				
OF	269	288	408	436	

LAKE 302W Susp N (ug/L) 1975

DEPTH(m)	DAY #							
	021	063	092	134	141	148	155	162
EPI	132	71	93	214		155		109
2	97	57	52			105		
3	100	71	46					
4						84		
5	61	57	36					
6						223		
7	97	96	41					
9	118	84	52			203		
11	240	260	162			303		
13	709	401	342			267		
OF				173	164	237	57	43

	169	176	183	190	198	204	211	219
EPI		71		75		57		71
2		68				52		
3								
4		96				73		
5								
6		114				96		
7								
9		244				210		
11		233				260		
13		294				280		
OF	93	80	75	59	46	57	57	

	225	232	246	253	260	267	274	281
EPI		75	88		88		70	
2		45			98			
3								
4		308			78			
5								
6		60			75			
7								
9		243			425			
11		295			365			
13		478			350			
OF	52		49	83		88		10

	289	295	302	309	315
EPI	180		235		341
2	117				267
3					
4	122				250
5					
6	122				250
7					
9	355				270
11	415				295
13	453				
OF		134	877	79	

LAKE 302N TDP (ug/L) 1975

DEPTH(m)	DAY #							
	021	063	092	134	141	149	155	162
EPI	10	6	10	5		6		5
2	12	10	13			7		
3	12	16	17					
4						8		
5	11	14	19					
6						10		
7	16	16	17					
9	19	23	18			15		
11	39	106	116			9		
13	878	496	756			23		
OF				9	6	16	8	8

	169	176	193	190	198	204	211	219
EPI		2		2		4		3
2		3				4		
3								
4		5				5		
5								
6		9				8		
7								
9		9				122		
11		392				540		
13		660				630		
OF	12	5	4	2	4	4	4	

	225	232	246	253	260	267	274	281
EPI		3	3		3		4	
2		4			4			
3								
4		3			3			
5								
6		8			4			
7								
9		152			178			
11		1320			1396			
13		2010			1592			
OF	4		4	4		4		4

	288	295	302	309	316
EPI	5		7		7
2	6				8
3					
4	5				8
5					
6	5				8
7					
9	216				7
11	1120				7
13	1230				
OF	6	6	6	8	

LAKE 302N Susp P (ug/L) 1975

DEPTH(m)	DAY #							
	021	063	092	134	141	149	155	162
EPI	13	10	5	26		10		8
2	12	9	5			8		
3	11	5	5					
4						13		
5	11	5	4					
6						25		
7	11	8	7					
9	26	18	15			49		
11	79	39	35			77		
13	246	101	97			107		
OF				19	14	24	8	5

	169	176	193	190	198	204	211	219
EPI		5		7		6		7
2		6				5		
3								
4		9				8		
5								
6		13				18		
7								
9		79				81		
11		77				85		
13		86				84		
OF	8	9	6	5	5	7	6	

	225	232	246	253	260	267	274	281
EPI		8	15		7		10	
2		6			5			
3								
4		5			5			
5								
6		17			5			
7								
9		108			123			
11		108			94			
13		133			98			
OF	6		8	6		5		5

	288	295	302	309	316
EPI	14		50		38
2	13				37
3					
4	12				36
5					
6	12				40
7					
9	134				38
11	95				39
13	102				
OF	22	8	45	11	

LAKE 302N DIC (uM/L) 1975

DEPTH(m)	DAY #							
	021	063	092	134	141	148	155	162
EPI	164	190	159	49				35
2	158	213	178			48		
3	194	248	207					
4						56		
5	235	300	247					
6						158		
7	285	334	310					
9	397	386	382			345		
11	452	555	513			461		
13	1193	1120	1188			519		
OF				51	57	134	145	152

	169	176	183	190	198	204	211	218
EPI				40				35
2		36				37		
3								
4		49				58		
5								
6		102				172		
7								
9		363				508		
11		537				661		
13		582				649		
OF	132	63	49	51	52	65	57	

	225	232	246	253	260	267	274	281
EPI			42				55	
2		44			55			
3								
4		48			59			
5								
6		246			76			
7								
9		597			603			
11		693			745			
13		787			746			
OF	73		145	98		125		188

	288	295	302	309	316
EPI			85		
2	55				45
3					
4	56				43
5					
6	52				45
7					
9	639				44
11	791				46
13	864				
OF	125	138	123	140	

LAKE 302N DOC (uM/L) 1975

DEPTH(m)	DAY #							
	021	063	092	134	141	148	155	162
EPI	490	468		492		470		447
2	540	470	509			516		
3	520	445	460					
4						457		
5	580	459	471					
6						465		
7		455	446					
9	510	469	476			465		
11	520	570	511			510		
13	900	775	713			592		
OF				502	470	443	419	411

	169	176	183	190	198	204	211	218
EPI		500		476		432		476
2		511				528		
3								
4		503				514		
5								
6		486				462		
7								
9		482				591		
11		754				837		
13		861				930		
OF	388	499	435	475	464	498	511	

	225	232	246	253	260	267	274	281
EPI		510	488		461		460	
2		508			427			
3								
4		498			427			
5								
6		493			416			
7								
9		608			570			
11		905			902			
13		1130			902			
OF	482		451	494		436		366

	288	295	302	309	316
EPI	446		435		426
2	435				427
3					
4	457				431
5					
6	457				432
7					
9	669				427
11	979				414
13	1020				
OF	430	428	415	408	

LAKE 302N Susp C (ug/L) 1975

DEPTH(m) DAY #

	021	063	092	134	141	149	155	162
EPI	800	740	560	1610		1150		760
2	750	530	490			970		
3	640	700	660					
4						740		
5	640	580	460					
6						1770		
7	610	840	450					
9	1190	980	590			1590		
11	1490	2390	1160			2230		
13	4120	2570	2410			1720		
OF				1440	1250	2760	640	540

	169	176	183	190	198	204	211	219
EPI		700		770		420		830
2		770				1450		
3								
4		980				660		
5								
6		1100				1060		
7								
9		1730				1480		
11		1540				1950		
13		1830				1680		
OF	660	880	970	690	930	1040	810	

	225	232	246	253	260	267	274	281
EPI		920	1120		760		650	
2		800			780			
3								
4		590			800			
5								
6		790			790			
7								
9		2150			2740			
11		2290			2170			
13		3030			2070			
OF	840		530	1230		790		290

	289	295	302	309	316
EPI	1030		1360		1980
2	1030				1640
3					
4	970				1730
5					
6	1000				1660
7					
9	2930				1840
11	2820				1680
13	3180				
OF		660	3340	710	

LAKE 302N CH4-C (uM/L) 1975

DEPTH(m) DAY #

	021	063	092	134	141	149	155	162
EPI	1	1						
2	1	1						
3	1	1						
4								
5	1	1						
6								
7	1	1						
9	1	1						
11	1	65						
13	539	378						
OF								

	169	176	183	190	198	204	211	219
EPI								
2								
3								
4								
5								
6								
7								
9								
11								
13								
OF								

	225	232	246	253	260	267	274	281
EPI								
2								
3								
4								
5								
6								
7								
9								
11								
13								
OF								

	289	295	302	309	316
EPI					
2					
3					
4					
5					
6					
7					
9					
11					
13					
OF					

LAKE 302N Cl (mg/L.) 1975

DEPTH(m) DAY #

	021	063	092	134	141	149	155	162
EPI	2.6	2.2	2.4					
2	2.6	2.6	2.6			1.8		
3	2.4	2.8	3.0					
4						2.0		
5	2.4	2.2	2.4					
6						2.2		
7	2.4	2.4	2.2					
9	2.6	2.2	2.4			2.2		
11	3.0	2.8	2.6			2.4		
13	2.4	2.6	2.6			2.4		
OF				2.0	2.2	1.8	2.0	1.8

	169	176	183	190	198	204	211	219
EPI								
2		2.2				1.8		
3								
4		2.2				1.8		
5								
6		2.4				2.0		
7								
9		2.8				3.6		
11		8.6				11.2		
13		12.2				13.0		
OF	2.2	2.1	1.8	1.4	1.8	1.5	1.9	

	225	232	246	253	260	267	274	281
EPI								
2		2.0			1.8			
3								
4		2.4			1.8			
5								
6		1.8			1.8			
7								
9		6.0			6.8			
11		18.0			15.8			
13		27.0			17.0			
OF	1.6		1.6	2.0		2.6		2.2

	288	295	302	309	316
EPI					
2	2.2				2.8
3					
4	2.2				2.8
5					
6	2.2				2.8
7					
9	8.6				2.8
11	15.4				3.0
13	16.2				
OF	2.4	2.6	2.8	3.0	

LAKE 302N SO4 (mg/L) 1975

DEPTH(m) DAY #

	021	063	092	134	141	149	155	162
EPI	3.2	3.6	3.0					
2	3.4	3.4	2.4			3.2		
3	3.4	3.2	2.6					
4						3.0		
5	3.4	3.2	2.8					
6						3.0		
7	3.2	3.0	5.2					
9	3.0	3.6	2.8			3.0		
11	1.6	2.6	2.2			3.0		
13	6.2	1.6	1.2			3.0		
OF				2.8	3.4	3.2	4.8	3.0

	169	176	183	190	198	204	211	219
EPI								
2		2.8				3.4		
3								
4		2.8				3.2		
5								
6		2.6				3.0		
7								
9		2.6				3.2		
11		1.8				2.0		
13		1.2				2.0		
OF	2.6	2.8	3.0	4.6	5.2	3.8	3.2	

	225	232	246	253	260	267	274	281
EPI								
2		5.6			3.0			
3								
4		5.6			3.0			
5								
6					3.0			
7								
9		2.8			2.2			
11		1.4			3.8			
13		1.8			4.6			
OF	3.2		3.2	3.0		3.2		3.2

	288	295	302	309	316
EPI					
2	3.2				3.0
3					
4	3.2				3.0
5					
6	3.2				3.0
7					
9	2.6				3.0
11	1.8				3.0
13	1.8				
OF	3.2	2.8	3.2	3.2	

LAKE 302N Na (mg/L) 1975

DEPTH(m)	DAY #							
	021	063	092	134	141	149	155	162
EPI	.80	.88	.60					
2	.79	.81	.65			.68		
3	.86	.86	.67					
4						.67		
5	.87	.87	.68					
6						.69		
7	.74	.88	.68					
9	.78	.83	.67			.71		
11	.89	.91	.68			.70		
13	.96	.85	.70			.77		
OF				.64	.66	.71	.72	.69

	169	176	183	190	198	204	211	218
EPI								
2		.66				.69		
3								
4		.70				.72		
5								
6		.70				.72		
7								
9		.71				.74		
11		.76				.72		
13		.77				.83		
OF	.77	.66	.64	.64	.66	.71	.67	

	225	232	246	253	260	267	274	281
EPI								
2		.68			.81			
3								
4		.69			.72			
5								
6		.71			.72			
7								
9		.74			.99			
11		.74			.72			
13		.76			.72			
OF	.66		.54	.63		.66		.75

	288	295	302	309	316
EPI					
2	.66				.68
3					
4	.66				.68
5					
6	.66				.68
7					
9	.70				.66
11	.71				.68
13	.71				
OF	.68	.69	.66	.73	

LAKE 302N K (mg/L) 1975

DEPTH(m)	DAY #							
	021	063	092	134	141	149	155	162
EPI	.44	.37	.39					
2	.41	.35	.36					
3	.42	.34	.36					
4								
5	.44	.36	.42					
6								
7	.43	.33	.40					
9	.44	.35	.39					
11	.67	.42	.41					
13	.47	.50	.52					
OF								

LAKE 302N Ca (mg/L) 1975

DEPTH(m)	DAY #							
	021	063	092	134	141	149	155	162
EPI	1.74	1.72	1.69					
2	1.67	1.75	1.68					
3	1.69	1.74	1.71					
4								
5	1.73	1.78	1.68					
6								
7	1.73	1.81	1.80					
9	1.76	1.74	1.72					
11	2.96	1.88	2.08					
13	1.85	2.39	2.86					
OF								

LAKE 302N Mg (mg/L) 1975

DEPTH(m)	DAY #							
	021	063	092	134	141	148	155	162
EPI	.59	.57	.59					
2	.58	.59	.59					
3	.58	.58	.59					
4								
5	.59	.60	.58					
6								
7	.59	.60	.60					
9	.60	.60	.60					
11	.77	.59	.62					
13	.60	.67	.73					
OF								

LAKE 302N Fe (mg/L) 1975

DEPTH(m)	DAY #							
	021	063	092	134	141	148	155	162
EPI	.04	.03	.02					
2	.05	.04	.04					
3	.04	.03	.04					
4								
5	.05	.04	.02					
6								
7	.08	.07	.09					
9	.17	.23	.22					
11	12.50	1.83	1.82					
13	1.00	6.97	8.67					
OF								

LAKE 302N SRSi (mg/L) 1975

DEPTH(m)	DAY #							
	021	063	092	134	141	148	155	162
EPI	.030	.051	.050	.232		.216		.193
2	.040	.048	.070			.242		
3	.062	.103	.100					
4						.182		
5	.109	.178	.180					
6						.293		
7	.212	.275	.310					
9	.414	.429	.400			.509		
11	2.060	.743	.750			.733		
13	.624	1.660	2.510			.825		
OF				.220	.220	.379	.290	.310

	169	176	183	190	198	204	211	219
EPI		.340		.320		.257		.159
2		.280				.241		
3								
4		.210				.170		
5								
6		.240				.232		
7								
9		.550				.706		
11		.800				.909		
13		.860				.951		
OF	.300	.320	.330	.320	.280	.257	.209	

	225	232	246	253	260	267	274	281
EPI		.098	.091		.088		.077	
2		.105			.090			
3								
4		.102			.088			
5								
6		.201			.091			
7								
9		.740			.775			
11		.955			1.080			
13		1.150			1.140			
OF	.167		.280	.148		.236		.358

	288	295	302	309	316
EPI	.026		.049		.006
2	.030				.009
3					
4	.049				.014
5					
6	.043				.009
7					
9	.779				.012
11	1.200				.010
13	1.230				
OF	.201	.263	.227	.235	

LAKE 302W Chl-a (ug/L) 1975

DEPTH(m)	DAY #							
	021	063	092	134	141	149	155	162
EPI	4.7	2.3	1.4	6.8		6.1		4.4
2	2.2	1.9	1.4			6.3		
3	2.3	1.4	1.6					
4						4.4		
5	1.7	1.4	1.2					
6						19.5		
7	1.8	1.8	1.5					
9	2.7	3.5	2.5			24.3		
11	6.3	6.8	6.0			12.5		
13	15.1	14.7	16.7			11.4		
OF								

	169	176	183	190	198	204	211	218
EPI		5.4		3.3		7.3		3.9
2		2.3				3.3		
3								
4		4.0				6.2		
5								
6		13.1				10.8		
7								
9		41.6				43.3		
11		24.8				45.0		
13		25.9				38.8		
OF								

	225	232	246	253	260	267	274	281
EPI		6.2	3.9		9.1		8.3	
2		4.0			3.4			
3								
4		4.2			3.6			
5								
6		10.9			4.5			
7								
9		107.0			114.0			
11		77.3			90.2			
13		58.8			78.7			
OF								

	288	295	302	309	316
EPI	11.1		20.3		32.2
2	5.5				28.0
3					
4	12.5				27.6
5					
6	11.4				32.5
7					
9	60.5				31.0
11	82.9				29.2
13	86.0				
OF					

Appendix 8

Lake 302 north basin 1976 water chemistry data

LAKE 302W Temp (C) 1976

DEPTH(m) DAY #

	009	099	119	126	133	140	147	154
EPI			7.16	6.66		13.15		21.11
2				6.63				20.19
4				6.59				12.20
6				6.55				7.72
9				6.25				6.26
11				5.60				6.09
12								
13				5.39				6.01
OF		.01	9.21	5.50	10.00	12.27	10.50	19.03

	161	168	175	182	189	196	203	210
EPI		17.31		19.76		21.97		22.79
2								
4				17.83				20.71
6				9.25				10.73
9				6.52				6.70
11				6.20				6.34
12								
13				6.13				6.29
OF	19.00	14.83	20.00	18.43	20.90	20.67	20.00	21.65

	217	224	231	238	245	252	259	266
EPI		21.28		22.72		17.94		14.75
2								
4				20.96				14.78
6				13.10				14.64
9				7.40				7.45
11				6.67				6.85
12								
13				6.59				6.73
OF	21.00		20.00	21.20	17.20	16.54	12.20	

	280	294
EPI	10.47	6.58
2		
4		6.60
6		6.61
9		6.60
11		6.56
12		
13		6.43
OF		

LAKE 302W Cond (uS/cm) 1976

DEPTH(m) DAY #

	009	099	119	126	133	140	147	154
EPI	25	25	21	22		20		21
2	24	26		22				21
4	24	26		22				21
6	24	27		22				21
9	26	26		22				23
11	29	44		22				29
12	30							
13				22				33
OF		24	21	22	23	21	25	22

	161	168	175	182	189	196	203	210
EPI		22		20		19		21
2								
4				20				21
6				21				22
9				28				46
11				50				70
12								
13				57				81
OF	25	22	22	20	24	19	22	22

	217	224	231	238	245	252	259	265
EPI		21		21		20		21
2								
4				20				21
6				23				21
9				54				62
11				94				98
12								
13				103				103
OF	22	22	22	23	22	23	23	

	280	294
EPI	24	26
2		
4		26
6		26
9		26
11		26
12		
13		25
OF		

LAKE 302N pH 1976

DEPTH(m) DAY #

	009	099	119	126	133	140	147	154
EPI	6.17	5.43	6.01	5.99		6.33		6.01
2	6.07	5.17		5.97				6.01
4	6.01	5.03		5.90				6.22
6	6.01	5.01		5.89				6.17
9	6.02	5.72		5.89				5.88
11	5.99	6.29		5.85				5.83
12	6.01							
13				5.80				5.72
OF		5.91	5.99	5.95	5.79	5.95	6.32	5.93

	161	168	175	182	189	196	203	210
EPI		6.24		6.11		6.53		6.57
2								
4				6.05				6.49
6				5.87				5.99
9				5.78				5.96
11				5.82				5.99
12								
13				5.83				5.82
OF	5.99	5.92	6.05	6.03	6.09	6.17	6.17	6.07

	217	224	231	238	245	252	259	266
EPI		6.40		6.60		6.18		6.18
2								
4				6.72				6.19
6				5.95				6.23
9				6.11				6.10
11				5.89				5.79
12								
13				5.81				5.72
OF	6.25	6.07	6.09	6.01	6.57	6.05	6.17	

	280	294
EPI	6.18	6.04
2		
4		6.03
6		6.01
9		6.03
11		6.03
12		
13		6.03
OF		

LAKE 302N O2 (mg/L) 1976

DEPTH(m) DAY #

	009	099	119	126	133	140	147	154
EPI	12.53	7.77		12.00				8.90
2	10.13	7.13		12.07				8.92
4	9.70	4.49		11.92				12.43
6	9.46	1.89		11.81				13.01
9	8.91	< .01		11.25				7.19
11	.91	< .01		9.56				3.24
12	.10							
13								
OF								.83

	161	168	175	182	189	196	203	210
EPI				8.98				8.21
2								
4				9.22				8.50
6				9.96				9.08
9				1.57				< .01
11				< .01				< .01
12								
13				< .01				< .01
OF								

	217	224	231	238	245	252	259	266
EPI				9.69				8.50
2								
4				10.43				8.52
6				8.48				8.64
9				< .01				< .01
11				< .01				< .01
12								
13				< .01				< .01
OF								

	280	294
EPI		
2		
4		9.50
6		9.21
9		9.15
11		9.40
12		
13		9.72
OF		

LAKE 302N NH3-N (ug/L) 1976

DEPTH(m)	DAY #							
	009	099	119	126	133	140	147	154
EPI			4	5		18		7
2				7				4
4				8				3
6				8				3
9				16				154
11				33				694
12								
13				60				1075
OF		218	7	11	27	31	3	49

	161	168	175	182	189	196	203	210
EPI		10		10		19		9
2								
4				9				7
6				10				7
9				690				1615
11				2750				3990
12								
13				3320				4740
OF	13	47	36	14	5	16	13	15

	217	224	231	238	245	252	259	265
EPI		10		5		6		3
2								
4				6				3
6				4				3
9				1950				2990
11				5350				6160
12								
13				6700				6500
OF	18	15	39	65	30	61	39	

	280	294
EPI	36	305
2		
4		314
6		326
9		319
11		316
12		
13		310
OF		

LAKE 302N NO3-N (ug/L) 1976

DEPTH(m)	DAY #							
	009	099	119	126	133	140	147	154
EPI			129	103		29		1
2				107				1
4				108				1
6				110				40
9				122				100
11				137				79
12								
13				150				61
OF		185	126	102	159	37	127	29

	161	168	175	182	189	196	203	210
EPI		4		1		1		1
2								
4				2				1
6				2				1
9				45				4
11				5				8
12								
13				1				8
OF	137	24	21	3	3	4	8	2

	217	224	231	238	245	252	259	266
EPI		1		1		2		1
2								
4				1				1
6				1				1
9				14				9
11				20				9
12								
13				21				11
OF	9	11	28	45	67	55	56	

	290	294
EPI	8	6
2		
4		5
6		5
9		6
11		6
12		
13		6
OF		

LAKE 302W TDN (ug/L.) 1976

DEPTH(m) DAY #

	009	099	119	126	133	140	147	154
EPI			376	442		384		374
2				490				334
4				474				378
6				434				352
9				478				664
11				510				1465
12								
13				566				1935
OF		691	422	438	430	422	365	490

	161	168	175	182	189	196	203	210
EPI		258		330		384		272
2								
4				346				282
6				360				290
9				1510				2540
11				3980				5150
12								
13				5950				6770
OF	394	340	296	388	322	282	348	316

	217	224	231	238	245	252	259	266
EPI		312		294		315		260
2								
4				306				255
6				310				265
9				2560				3340
11				6800				7510
12								
13				7950				8330
OF	328	298	366	426	402	440	365	

	280	294
EPI	390	610
2		
4		610
6		590
9		650
11		640
12		
13		720
OF		

LAKE 302W Susp N (ug/L.) 1976

DEPTH(m) DAY #

	009	099	119	126	133	140	147	154
EPI			242	208		155		130
2				215				99
4				191				196
6				203				201
9				184				125
11				186				215
12								
13				158				290
OF		152	235	182	64	80	20	153

	161	168	175	182	189	196	203	210
EPI		146		141		163		195
2								
4				143				179
6				258				196
9				310				275
11				399				299
12								
13				258				207
OF	109	132	135	169	153	104	136	190

	217	224	231	238	245	252	259	266
EPI		191		130		149		101
2								
4				118				113
6				134				111
9				277				437
11				337				491
12								
13				359				530
OF	161	155	97	46	115	57	129	

	280	294
EPI	168	220
2		
4		226
6		214
9		229
11		213
12		
13		209
OF		

LAKE 302N TDP (ug/L) 1976

DEPTH(m)	DAY #							
	009	099	119	126	133	140	147	154
EPI			10	9		5		7
2				10				6
4				9				8
6				9				6
9				9				7
11				9				38
12								
13				9				54
OF		8	10	10	8	7	3	9

	161	168	175	182	189	196	203	210
EPI		4		4		4		3
2								
4				4				4
6				5				5
9				14				120
11				320				540
12								
13				450				742
OF	12	4	6	5	5	5	4	5

	217	224	231	238	245	252	259	266
EPI		4		3		4		3
2								
4				3				3
6				4				4
9				116				130
11				770				890
12								
13				980				970
OF	5	5	4	7	5	9	5	

	280	294
EPI	6	6
2		
4		7
6		7
9		7
11		7
12		
13		8
OF		

LAKE 302N Susp P (ug/L) 1976

DEPTH(m)	DAY #							
	009	099	119	126	133	140	147	154
EPI			29	27		16		10
2				27				9
4				26				12
6				26				16
9				26				15
11				20				45
12								
13				26				99
OF		20	27	22	11	11	2	16

	161	168	175	182	189	196	203	210
EPI		12		11		11		11
2								
4				11				11
6				23				14
9				20				81
11				133				100
12								
13				149				113
OF	3	12	16	12	13	12	12	16

	217	224	231	238	245	252	259	266
EPI		10		9		10		8
2								
4				8				8
6				11				8
9				90				141
11				106				123
12								
13				123				125
OF	15	12	12	12	9	8	11	

	280	294
EPI	19	37
2		
4		37
6		39
9		38
11		35
12		
13		36
OF		

LAKE 302N DIC (uM/L) 1976

DEPTH(m) DAY #

	009	099	119	126	133	140	147	154
EPI	59	127	24	39		18		35
2	74	140		39				36
4	82	159		49				26
6	99	240		47				22
9	173	358		59				153
11	296	542		103				246
12	349							
13				126				298
OF		197	40	67	80	75	131	141

	161	168	175	182	189	196	203	210
EPI		36		29		21		25
2								
4				32				28
6				101				93
9				297				370
11				445				439
12								
13				459				451
OF	173	97	74	39	70	58	39	72

	217	224	231	238	245	252	259	266
EPI		24		20		38		50
2								
4				14				50
6				143				47
9				464				597
11				568				704
12								
13				610				728
OF	79	96	119	146	134	207	170	

	280	294
EPI	57	73
2		
4		77
6		73
9		72
11		71
12		
13		74
OF		

LAKE 302N DOC (uM/L) 1976

DEPTH(m) DAY #

	009	099	119	126	133	140	147	154
EPI			420	468		434		345
2				432				350
4				466				310
6				456				304
9				430				330
11				426				374
12								
13				442				345
OF		459	456	430	382	448	294	334

	161	168	175	182	189	196	203	210
EPI		354		470		464		478
2								
4				492				434
6				414				410
9				472				510
11				606				650
12								
13				654				700
OF	352	358	424	484	450	476	454	476

	217	224	231	238	245	252	259	266
EPI		528		540		600		580
2								
4				535				520
6				470				470
9				605				720
11				790				1010
12								
13				865				970
OF	510	530	522	525	1210	485	415	

	280	294
EPI	490	460
2		
4		480
6		460
9		450
11		460
12		
13		470
OF		

LAKE 302N Susp C (ug/L) 1976

DEPTH(m) DAY #

	009	099	119	126	133	140	147	154
EPI			1900	1700		1240		970
2				1720				810
4				1440				1170
6				1620				1390
9				1350				830
11				1510				1270
12								
13				1070				1540
OF		1760	1870	1550	680	790	260	1630

	161	168	175	182	189	196	203	210
EPI		1090		1470		1660		2000
2								
4				1510				1590
6				1200				1450
9				1190				1490
11				1650				1920
12								
13				1630				1840
OF	350	990	1080	1720	1560	1630	1590	1810

	217	224	231	238	245	252	259	266
EPI		1630		1560		1630		1220
2								
4				1470				1170
6				1530				1270
9				2360				3210
11				2570				3370
12								
13				2690				3580
OF	1630	1430	1160	1010	910	710	930	

	280	294
EPI	1150	1300
2		
4		1340
6		1330
9		1340
11		1310
12		
13		1170
OF		

LAKE 302N Cl (mg/L) 1975

DEPTH(m) DAY #

	009	099	119	126	133	140	147	154
EPI			2.6	2.6		2.6		2.6
2				2.6				2.6
4				2.6				2.8
6				2.6				2.8
9				2.8				2.8
11				2.6				3.8
12								
13				2.6				4.8
OF		2.4	2.6	2.4	2.8	2.8	2.6	2.6

	161	168	175	182	189	196	203	210
EPI		2.0		2.2		2.4		2.4
2								
4				2.2				2.6
6				2.6				2.8
9				3.6				6.6
11				8.8				11.2
12								
13				10.4				14.0
OF	2.4	2.6	2.8	2.4	2.4	2.4	2.4	2.2

	217	224	231	238	245	252	259	266
EPI		2.4		2.4		2.2		2.2
2								
4				2.4				2.2
6				2.9				2.2
9				7.4				8.4
11				15.8				16.4
12								
13				18.4				17.6
OF	2.6	2.2	2.4	2.8	2.2	2.0	2.2	

	280	294
EPI	2.6	3.4
2		
4		3.4
6		3.4
9		3.4
11		3.4
12		
13		3.4
OF		

LAKE 302W SO4 (mg/L) 1976

DEPTH(m)	DAY #							
	009	099	119	126	133	140	147	154
EPI			2.8	2.6		2.6		2.6
2				2.6				2.6
4				2.6				2.4
6				2.6				2.6
9				2.6				2.2
11				2.8				2.4
12								
13				2.4				2.2
OF		3.0	2.6	2.6	2.6	2.6	2.8	2.6

	161	168	175	182	189	196	203	210
EPI		2.6		2.8		2.4		2.6
2								
4				2.8				2.6
6				2.8				2.4
9				2.6				1.6
11				2.0				.8
12								
13				1.8				1.0
OF	2.6	2.4	2.8	2.8	3.0	2.4	2.6	2.4

	217	224	231	238	245	252	259	266
EPI		2.6		2.8		3.0		2.8
2								
4				2.8				2.8
6				2.6				2.8
9				1.4				2.0
11				1.0				1.2
12								
13				1.2				1.2
OF	2.6	2.4	2.4	2.6	2.6	2.6	2.6	

	280	294
EPI	2.6	2.6
2		
4		2.6
6		2.6
9		2.6
11		2.8
12		
13		2.8
OF		

LAKE 302W Na (mg/L) 1976

DEPTH(m)	DAY #							
	009	099	119	126	133	140	147	154
EPI			.66					
2								
4								
6								
9								
11								
12								
13								
OF		.65	.64					

LAKE 302W K (mg/L) 1976

DEPTH(m)	DAY #							
	009	099	119	126	133	140	147	154
EPI			.37					
2								
4								
6								
9								
11								
12								
13								
OF		.44	.38					

LAKE 302N Ca (mg/L) 1976

DEPTH(m)	DAY #							
	009	099	119	126	133	140	147	154
EPI			2.32					
2								
4								
6								
9								
11								
12								
13								
OF		1.82	2.32					

LAKE 302N Mg (mg/L) 1976

DEPTH(m)	DAY #							
	009	099	119	126	133	140	147	154
EPI			.57					
2								
4								
6								
9								
11								
12								
13								
OF		.63	.57					

LAKE 302N Susp Fe (ug/L) 1976

DEPTH(m)	DAY #							
	009	099	119	126	133	140	147	154
EPI			133	112		73		25
2				103				23
4				99				16
6				101				46
9				110				124
11				135				351
12								
13				133				615
OF				59	50	38		41

	161	168	175	182	189	195	203	210
EPI		29		54		26		30
2								
4				69				37
6				77				65
9				206				294
11				431				217
12								
13				373				239
OF	30	60	68	35	70	49	66	122

	217	224	231	238	245	252	259	265
EPI		16		10		60		124
2								
4				12				25
6				42				62
9				252				906
11				190				252
12								
13				178				210
OF	83	34	42	56	< 2	161	396	

	280	294
EPI	146	
2		
4		277
6		152
9		133
11		347
12		
13		478
OF		

LAKE 302N SRSi (mg/L.) 1976

DEPTH(m) DAY #

	009	099	119	126	133	140	147	154
EPI			.259	.240		.183		.054
2				.250				.051
4				.253				.043
6				.257				.015
9				.252				.395
11				.272				.410
12								
13				.291				.452
OF		.271	.263	.242	.302	.194	.627	.112

	161	168	175	182	189	196	203	210
EPI		.050		.113		.075		.052
2								
4				.123				.054
6				.018				.037
9				.359				.496
11				.538				.529
12								
13				.582				.668
OF	.289	.087	.087	.119	.134	.107	.115	.107

	217	224	231	238	245	252	259	266
EPI		.040		.032		.020		.021
2								
4				.030				.019
6				.061				.021
9				.527				.541
11				.721				.792
12								
13				.777				.830
OF	.095	.099	.170	.283	.212	.435	.373	

	280	294
EPI	.034	.054
2		
4		.055
6		.050
9		.052
11		.051
12		
13		.052
OF		

LAKE 302N Chl-a (ug/L) 1976

DEPTH(m) DAY #

	009	099	119	126	133	140	147	154
EPI			27.9	21.1		12.6		2.9
2				16.5				3.1
4				22.3				9.1
6				20.8				31.1
9				19.5				13.3
11				20.1				6.2
12								
13				25.1				7.1
OF								

	161	168	175	182	189	196	203	210
EPI		7.6		8.2		5.4		4.7
2								
4				9.4				6.5
6				9.3				14.4
9				9.0				17.6
11				12.5				24.3
12								
13				14.0				23.0
OF								

	217	224	231	238	245	252	259	266
EPI		5.5		4.5		4.4		5.6
2								
4				5.5				5.7
6				10.6				5.5
9				59.4				80.1
11				58.5				83.7
12								
13				54.7				86.2
OF								

	280	294
EPI	11.6	23.8
2		
4		22.8
6		21.8
9		22.6
11		21.4
12		
13		15.9
OF		

Appendix 9

Lake 302 north basin 1978 water chemistry data

LAKE 302N Temp (C) 1978

DEPTH(m)	DAY #							
	130	137	144	151	158	166	172	179
EPI				15.54				20.42
4				9.66				14.73
6				6.03				6.94
9				4.63				4.77
11				4.51				4.60
13				4.61				
OF	9.70	18.00	23.00	14.50	15.00	15.00	18.00	24.00
	186	193	200	207	214	221	228	235
EPI				21.82				17.96
4				18.81				17.98
6				8.60				11.69
9				5.13				5.53
11				4.94				5.22
13				4.94				5.19
OF	25.00	20.00	21.00	21.27	18.20	21.70	19.50	17.20
	242	249	255	263	270	277	284	291
EPI				13.78				8.38
4				13.80				8.38
6				13.62				8.38
9				6.03				8.34
11				5.41				5.79
13				5.31				5.62
OF	15.90	22.00	12.80	13.20	11.80	11.50	11.50	6.40
	298							
EPI								
4								
6								
9								
11								
13								
OF	6.20							

LAKE 302N Cond (uS/cm) 1978

DEPTH(m)	DAY #							
	130	137	144	151	158	166	172	179
EPI				20				21
4				22				20
6				24				25
9				32				33
11				46				50
13				50				
OF				21				19
	186	193	200	207	214	221	228	235
EPI				22				20
4				21				20
6				25				24
9				51				63
11				85				95
13				98				106
OF				21				20
	242	249	256	263	270	277	284	291
EPI				21				23
4				21				23
6				21				23
9				73				24
11				95				97
13				95				110
OF				21				23
	298							
EPI								
4								
6								
9								
11								
13								
OF								

LAKE 302W pH 1978

DEPTH(m)	DAY #							
	130	137	144	151	158	165	172	179
EPI				6.40				6.50
4				6.26				6.46
6				5.94				5.83
9				6.03				5.01
11				6.20				6.02
13				6.20				
OF				6.40				6.81

	186	193	200	207	214	221	228	235
EPI				6.31				6.51
4				6.35				6.50
6				5.82				5.71
9				6.29				6.28
11				6.20				5.96
13				5.71				5.78
OF				6.31				6.31

	242	249	256	263	270	277	284	291
EPI				6.30				6.22
4				6.31				6.18
6				6.11				6.16
9				6.30				6.13
11				6.07				6.09
13				6.05				6.19
OF				6.24				6.08

	298
EPI	
4	
6	
9	
11	
13	
OF	

LAKE 302W O2 (mg/L) 1978

DEPTH(m)	DAY #							
	130	137	144	151	158	166	172	179
EPI				9.22				8.52
4				10.08				9.40
6				4.70				4.74
9				< .01				.10
11				< .01				< .01
13				< .01				
OF								

	186	193	200	207	214	221	228	235
EPI				8.42				8.76
4				8.81				8.51
6				3.36				2.42
9				< .01				< .01
11				< .01				< .01
13				< .01				< .01
OF								

	242	249	256	263	270	277	284	291
EPI				8.58				9.20
4				8.63				9.06
6				8.20				9.15
9				< .01				9.11
11				< .01				< .01
13				< .01				< .01
OF								

	298
EPI	
4	
6	
9	
11	
13	
OF	

LAKE 302N NH3-N (ug/L) 1978

DEPTH(m)	DAY #							
	130	137	144	151	158	166	172	179
EPI				16				1
4				20				2
6				14				16
9				550				540
11				1410				1780
13				1660				
OF				18				3

DEPTH(m)	DAY #							
	185	193	200	207	214	221	228	235
EPI				6				7
4				5				7
6				33				47
9				1530				2420
11				4750				5300
13				6150				6650
OF				6				6

DEPTH(m)	DAY #							
	242	249	256	263	270	277	284	291
EPI				5				92
4				3				102
6				3				118
9				3030				132
11				5320				5070
13				5390				5960
OF				3				25

DEPTH(m)	DAY #
	298
EPI	
4	
6	
9	
11	
13	
OF	

LAKE 302N NO3-N (ug/L) 1978

DEPTH(m)	DAY #							
	130	137	144	151	158	165	172	179
EPI				35				< 1
4				56				< 1
6				126				55
9				3				4
11				5				7
13				5				
OF				11				2

DEPTH(m)	DAY #							
	186	193	200	207	214	221	223	235
EPI				2				< 1
4				< 1				< 1
6				< 1				< 1
9				3				7
11				6				5
13				9				6
OF				11				< 1

DEPTH(m)	DAY #							
	242	249	256	263	270	277	284	291
EPI				< 1				< 1
4				< 1				< 1
6				< 1				< 1
9				10				< 1
11				10				16
13				11				22
OF				< 1				13

DEPTH(m)	DAY #
	298
EPI	
4	
6	
9	
11	
13	
OF	

LAKE 302N TDN (ug/L) 1978

DEPTH(m)	DAY #							
	130	137	144	151	158	166	172	179
EPI				245				220
4				295				235
6				355				295
9				810				930
11				1720				2140
13				2010				
OF	310	365	470	265	250	230	290	232

	186	193	200	207	214	221	228	235
EPI				310				215
4				270				220
6				345				340
9				1920				2570
11				5025				5650
13				6450				6800
OF	315	255	255	275	310	280	285	210

	242	249	256	263	270	277	284	291
EPI				215				350
4				230				370
6				230				400
9				3130				420
11				5450				5240
13				5390				6240
OF	255	290	220	215	205	225	260	275

	298
EPI	
4	
6	
9	
11	
13	
OF	340

LAKE 302N Susp N (ug/L) 1978

DEPTH(m)	DAY #							
	130	137	144	151	158	165	172	179
EPI				74				104
4				74				92
6				112				260
9				130				193
11				204				239
13				259				
OF	69	56	124	52	63	121	74	126

	186	193	200	207	214	221	228	235
EPI				133				128
4				133				61
6				162				159
9				356				459
11				393				593
13				515				434
OF	131	105	113	73	136	95	121	249

	242	249	256	263	270	277	284	291
EPI				83				150
4				90				136
6				101				147
9				365				132
11				389				355
13				330				325
OF	92	133	101	81	68	317	219	46

	298
EPI	
4	
6	
9	
11	
13	
OF	99

LAKE 302N TDP (ug/L) 1978

DEPTH(m) DAY #

	130	137	144	151	158	166	172	179
EPI				4				5
4				5				7
6				5				9
9				8				15
11				290				290
13				350				
OF	5	4	15	4	5	6	5	6

	186	193	200	207	214	221	228	235
EPI				5				3
4				6				3
6				9				9
9				186				290
11				950				950
13				1100				1210
OF	10	6	5	6	4	4	4	5

	242	249	256	263	270	277	284	291
EPI				2				5
4				3				5
6				3				6
9				406				7
11				925				810
13				935				1070
OF	5	4	4	4	3	4	5	4

	298
EPI	
4	
6	
9	
11	
13	
OF	7

LAKE 302N Susp P (ug/L) 1979

DEPTH(m) DAY #

	130	137	144	151	158	166	172	179
EPI				10				9
4				16				13
6				18				23
9				41				49
11				92				72
13				97				
OF	7	7	21	8	7	9	9	9

	186	193	200	207	214	221	228	235
EPI				5				5
4				5				5
6				14				11
9				84				113
11				91				116
13				128				133
OF	15	8	9	7	8	7	9	14

	242	249	256	263	270	277	284	291
EPI				9				25
4				9				27
6				10				30
9				102				32
11				104				104
13				104				229
OF	8	8	11	13	10	8	29	12

	298
EPI	
4	
6	
9	
11	
13	
OF	20

LAKE 302N DIC (uM/L.) 1978

DEPTH(m)	DAY #							
	130	137	144	151	158	166	172	179
EPI				47				52
4				96				62
6				240				259
9				439				445
11				545				590
13				570				
OF				62				46

	186	193	200	207	214	221	228	235
EPI				55				51
4				72				51
6				292				296
9				600				650
11				725				790
13				765				815
OF				98				66

	242	249	256	263	270	277	284	291
EPI				52				83
4				58				80
6				87				88
9				750				89
11				885				1010
13				870				1200
OF				66				86

	295
EPI	
4	
6	
9	
11	
13	
OF	

LAKE 302N DOC (uM/L) 1978

DEPTH(m)	DAY #							
	130	137	144	151	158	166	172	179
EPI				340				540
4				345				570
6				355				550
9				430				640
11				520				790
13				510				
OF				375				540

	186	193	200	207	214	221	228	235
EPI				450				285
4				430				295
6				465				425
9				590				540
11				810				620
13				850				620
OF				465				345

	242	249	256	263	270	277	284	291
EPI				410				445
4				495				435
6				490				440
9				740				455
11				950				940
13				960				1100
OF				480				440

	298
EPI	
4	
6	
9	
11	
13	
OF	

LAKE 302W Susp C (ug/L) 1978

DEPTH(m)	DAY #							
	130	137	144	151	158	166	172	179
EPI				950				950
4				920				1010
6				1250				1630
9				1230				1500
11				2090				1570
13				1790				
OF	620	650	1740	870	730	920	960	1030

	185	193	200	207	214	221	228	235
EPI				810				770
4				750				610
6				950				1080
9				2170				2700
11				2370				2610
13				3120				3300
OF	1020	790	860	660	1035	910	930	1980

	242	249	256	263	270	277	284	291
EPI				780				1090
4				770				1020
6				850				1080
9				2460				1090
11				2510				2540
13				2280				5270
OF	750	850	1120	1100	980	2050	2480	690

	298
EPI	
4	
6	
9	
11	
13	
OF	590

LAKE 302W Cl (mg/L) 1978

DEPTH(m)	DAY #							
	130	137	144	151	158	166	172	179
EPI				2.0				2.0
4				2.0				2.2
6				2.5				2.9
9				2.6				2.4
11				4.2				5.9
13				4.6				
OF				1.9				2.0

	186	193	200	207	214	221	229	235
EPI				2.2				1.9
4				2.2				2.0
6				2.8				2.8
9				5.6				7.2
11				13.8				14.0
13				15.8				16.5
OF				2.4				2.4

	242	249	255	263	270	277	284	291
EPI				2.2				3.6
4				2.2				3.6
6				2.4				3.6
9				8.8				3.6
11				12.2				12.6
13				12.4				12.4
OF				2.6				3.4

	298
EPI	
4	
6	
9	
11	
13	
OF	

LAKE 302N SO4 (mg/L) 1978

DEPTH(m)	DAY #							
	130	137	144	151	158	166	172	179
EPI				3.0				2.9
4				3.0				3.0
6				2.9				2.6
9				2.8				3.0
11				2.6				2.0
13				2.4				
OF				3.0				2.8

	186	193	200	207	214	221	229	235
EPI				2.5				2.9
4				2.6				3.0
6				2.4				3.0
9				1.4				1.8
11				.9				1.6
13				.8				2.2
OF				2.4				4.0

	242	249	256	263	270	277	284	291
EPI				2.9				2.0
4				2.8				1.8
6				2.6				2.0
9				1.4				1.8
11				1.9				.2
13				1.8				< .2
OF				2.6				2.0

	298
EPI	
4	
6	
9	
11	
13	
OF	

LAKE 302N Na (mg/L.) 1978

DEPTH(m)	DAY #							
	130	137	144	151	158	166	172	179
EPI				.62				.62
4				.64				.65
6				.66				.69
9				.70				.67
11				.70				.70
13				.69				
OF				.61				.65

	186	193	200	207	214	221	229	235
EPI				.75				.79
4				.71				.78
6				.73				.42
9				.79				.86
11				.77				.95
13				.79				.88
OF				.69				.74

	242	249	256	263	270	277	284	291
EPI				.79				.75
4				.79				.75
6				.77				.75
9				.85				.77
11				.88				.95
13				.93				.84
OF				.77				1.21

	298
EPI	
4	
6	
9	
11	
13	
OF	

LAKE 302N K (mg/L) 1979

DEPTH(m)	DAY #							
	130	137	144	151	158	166	172	179
EPI				.34				.36
4				.36				.32
6				.39				.35
9				.42				.39
11				.44				.40
13				.44				
OF				.34				.30

DEPTH(m)	DAY #							
	186	193	200	207	214	221	228	235
EPI				.33				.32
4				.32				.32
6				.37				.35
9				.43				.45
11				.43				.49
13				.47				.52
OF				.30				.33

DEPTH(m)	DAY #							
	242	249	256	263	270	277	284	291
EPI				.31				.29
4				.31				.29
6				.31				.29
9				.43				.29
11				.48				.55
13				.49				.55
OF				.31				.37

DEPTH(m)	DAY #
	298
EPI	
4	
6	
9	
11	
13	
OF	

LAKE 302N Ca (mg/L) 1978

DEPTH(m)	DAY #							
	130	137	144	151	158	166	172	179
EPI				1.72				1.59
4				1.87				1.70
6				1.92				1.96
9				2.17				2.46
11				2.43				2.24
13				2.49				
OF				1.77				1.70

DEPTH(m)	DAY #							
	186	193	200	207	214	221	228	235
EPI				1.59				1.45
4				1.73				1.59
6				1.93				1.59
9				2.86				3.97
11				2.20				3.03
13				2.34				2.87
OF				1.59				1.93

DEPTH(m)	DAY #							
	242	249	256	263	270	277	284	291
EPI				1.71				1.69
4				1.82				1.74
6				1.75				1.62
9				4.08				1.68
11				3.53				3.35
13				3.42				3.53
OF				1.87				1.74

DEPTH(m)	DAY #
	298
EPI	
4	
6	
9	
11	
13	
OF	

LAKE 302N Mg (mg/L) 1978

DEPTH(m)	DAY # 130	137	144	151	158	166	172	179
EPI				.55				.48
4				.56				.50
6				.58				.53
9				.61				.56
11				.60				.54
13				.63				
OF				.54				.51

	186	193	200	207	214	221	228	235
EPI				.54				.55
4				.57				.59
6				.62				.57
9				.67				.64
11				.62				.68
13				.66				.68
OF				.53				.60

	242	249	256	263	270	277	284	291
EPI				.54				.59
4				.53				.61
6				.60				.60
9				.64				.60
11				.70				.70
13				.68				.73
OF				.54				.63

	298
EPI	
4	
6	
9	
11	
13	
OF	

LAKE 302N Susp Fe (ug/L) 1978

DEPTH(m)	DAY # 130	137	144	151	158	166	172	179
EPI				37				33
4				49				37
6				115				98
9				357				184
11				193				82
13				156				
OF	35	35	64	39	20	26	21	31

	186	193	200	207	214	221	229	235
EPI				31				25
4				36				25
6				58				54
9				233				129
11				109				114
13				119				114
OF	35	25	33	45	44	33	31	120

	242	249	256	263	270	277	294	291
EPI				33				139
4				35				142
6				50				149
9				84				169
11				107				114
13				105				231
OF	51	33	68	61	67	32	226	67

	298
EPI	
4	
6	
9	
11	
13	
OF	81

LAKE 302N SRSi (mg/L) 1978

DEPTH(m)	DAY #							
	130	137	144	151	158	166	172	179
EPI				.427				.259
4				.290				.167
6				.417				.012
9				.780				.721
11				.903				.901
13				.964				
OF				.421				.244

	186	193	200	207	214	221	228	235
EPI				.269				.134
4				.200				.146
6				.041				.026
9				.794				.786
11				.912				.972
13				.952				1.010
OF				.243				.157

	242	249	256	263	270	277	284	291
EPI				.127				.136
4				.126				.133
6				.134				.135
9				.818				.146
11				1.170				1.190
13				1.150				1.420
OF				.158				.144

	298
EPI	
4	
6	
9	
11	
13	
OF	

LAKE 302N Chl-a (ug/L) 1978

DEPTH(m)	DAY #							
	130	137	144	151	158	166	172	179
EPI				5.1				3.4
4				8.4				7.5
6				20.4				29.0
9				6.8				19.3
11				13.1				28.2
13				11.0				
OF								

	186	193	200	207	214	221	228	235
EPI				2.3				4.6
4				3.4				4.9
6				4.6				4.8
9				110.0				190.0
11				51.5				106.0
13				50.3				96.1
OF								

	242	249	256	263	270	277	284	291
EPI				6.5				13.0
4				7.1				12.9
6				10.6				14.6
9				202.0				13.5
11				133.0				172.0
13				129.0				560.0
OF								

	298
EPI	
4	
6	
9	
11	
13	
OF	

LAKE 302W Colour (abs425nm) 1978

DEPTH(m)	DAY #							
	130	137	144	151	158	166	172	179
EPI				.058				.050
4				.058				.055
6				.070				.063
9				.149				.154
11				.163				.193
13				.169				
OF				.057				.052

	186	193	200	207	214	221	228	235
EPI				.042				.043
4				.055				.042
6				.030				.043
9				.159				.338
11				.160				.299
13				.167				.300
OF				.051				.041

	242	249	256	263	270	277	284	291
EPI				.041				.042
4				.043				.044
6				.042				.048
9				.257				.047
11				.257				.285
13				.250				.523
OF				.053				.041

	298
EPI	
4	
6	
9	
11	
13	
OF	

Appendix 10

Lake 302 north basin 1979 water chemistry data

LAKE 302N Cond (uS/cm) 1979

DEPTH(m)	DAY #
	351
EPI	25
4	23
6	23
9	24
11	27
13	59

LAKE 302N pH 1979

DEPTH(m)	DAY #
	351
EPI	6.39
4	6.17
6	6.10
9	5.98
11	5.86
13	6.69

LAKE 302N O2 (mg/L) 1979

DEPTH(m)	DAY #
	351
EPI	13.68
4	9.91
6	9.20
9	6.90
11	.41
13	< .01

LAKE 302N NH3-N (ug/L) 1979

DEPTH(m)	DAY #
	351
EPI	83
4	103
6	94
9	142
11	495
13	1090

LAKE 302N NO3-N (ug/L) 1979

DEPTH(m)	DAY #
	351
EPI	24
4	22
6	15
9	72
11	49
13	7

LAKE 302N TDN (ug/L) 1979

DEPTH(m)	DAY #
	351
EPI	490
4	465
6	365
9	550
11	970
13	1830

LAKE 302N Susp N (ug/L) 1979

DEPTH(m)	DAY #
	351
EPI	184
4	80
6	90
9	83
11	270
13	1116

LAKE 302N DIC (uM/L) 1979

DEPTH(m)	DAY #
	351
EPI	75
4	100
6	117
9	181
11	360
13	715

LAKE 302N TDP (ug/L) 1979

DEPTH(m)	DAY #
	351
EPI	7
4	5
6	2
9	5
11	6
13	14

LAKE 302N DOC (uM/L) 1979

DEPTH(m)	DAY #
	351
EPI	600
4	445
6	430
9	450
11	490
13	770

LAKE 302N Susp P (ug/L) 1979

DEPTH(m)	DAY #
	351
EPI	14
4	11
6	5
9	12
11	47
13	301

LAKE 302N Susp C (ug/L) 1979

DEPTH(m)	DAY #
	351
EPI	1200
4	900
6	790
9	940
11	1790
13	6450

LAKE 302N Cl (mg/L) 1979

DEPTH(m)	DAY #
	351
EPI	3.2
4	3.0
6	2.0
9	3.0
11	3.0
13	2.8

LAKE 302N K (mg/L) 1979

DEPTH(m)	DAY #
	351
EPI	.46
4	.38
6	.32
9	.36
11	.38
13	.46

LAKE 302N SO4 (mg/L) 1979

DEPTH(m)	DAY #
	351
EPI	3.0
4	2.6
6	2.4
9	2.4
11	2.4
13	1.4

LAKE 302N Ca (mg/L) 1979

DEPTH(m)	DAY #
	351
EPI	2.21
4	1.94
6	1.85
9	1.99
11	1.78
13	3.28

LAKE 302N Na (mg/L) 1979

DEPTH(m)	DAY #
	351
EPI	.97
4	.82
6	.90
9	.82
11	.95
13	.91

LAKE 302N Mg (mg/L) 1979

DEPTH(m)	DAY #
	351
EPI	.70
4	.63
6	.60
9	.64
11	.67
13	.73

LAKE 302W Mn (mg/L) 1979

DEPTH(m)	DAY #
	351
EPI	.05
4	.03
6	.05
9	.05
11	.23
13	2.91

LAKE 302W Chl-a (ug/L) 1979

DEPTH(m)	DAY #
	351
EPI	14.6
4	6.0
6	3.0
9	5.2
11	8.1
13	45.0

LAKE 302W Fe (mg/L) 1979

DEPTH(m)	DAY #
	351
EPI	.03
4	.03
6	.03
9	.07
11	.07
13	9.16

LAKE 302W Colour (abs425nm) 1979

DEPTH(m)	DAY #
	351
EPI	.044
4	.039
6	.027
9	.043
11	.042
13	.579

LAKE 302W SRSi (mg/L) 1979

DEPTH(m)	DAY #
	351
EPI	.107
4	.154
6	.270
9	.303
11	.555
13	.994

Appendix 11

Lake 302 north basin 1980 water chemistry data

LAKE 302N Temp (C) 1980

DEPTH(m) DAY #

	022	056	162	190	218	246	274	302
EPI			16.97	20.59	21.22	19.80	11.68	4.71
4			15.81	19.99	21.24	19.30	11.45	4.71
6			7.96	10.67	13.30	16.90	11.21	4.75
9			5.82	6.35	7.01	7.50	10.30	4.73
11			5.61	5.89	6.25	6.70	6.92	4.71
13			5.49	5.77	6.10	6.40	6.71	4.63
OF			13.50		17.80	16.70	10.60	3.00

	343
EPI	
4	
6	
9	
11	
13	
OF	

LAKE 302N pH 1980

DEPTH(m) DAY #

	022	056	162	190	218	246	274	302
EPI	6.14	5.80	6.59	6.63	6.39	6.53	6.50	6.44
4	5.83	5.65	6.59	6.64	6.49	6.66	6.49	6.45
6	5.79	5.59	6.27	6.10	5.96	5.90	6.32	6.50
9	5.63	5.61	5.81	6.11	5.83	5.81	6.03	6.53
11	6.24	6.19	5.89	6.50	6.19	6.33	6.32	6.56
13	6.81	6.63	5.97	6.20	6.30	6.31	6.39	6.57
OF			6.10		6.15	6.22	6.21	6.50

	343
EPI	6.23
4	6.19
6	6.18
9	6.17
11	6.04
13	6.26
OF	

LAKE 302N Cond (uS/cm) 1980

DEPTH(m) DAY #

	022	056	162	190	218	246	274	302
EPI	24	24	22	22	21	22	21	24
4	23	25	22	22	22	23	21	22
6	23	24	22	23	23	24	21	22
9	24	25	25	25	26	24	23	22
11	33	36	27	34	39	47	55	21
13	97	93	28	36	43	49	61	22
OF			24		22	23	23	22

	343
EPI	23
4	23
6	22
9	23
11	25
13	36
OF	

LAKE 302N O2 (mg/L) 1980

DEPTH(m) DAY #

	022	056	162	190	218	246	274	302
EPI	10.67	9.52	10.08	9.18	7.40	8.45	9.55	11.39
4	8.51	6.73	10.39	9.78	3.90	8.35	9.30	11.41
6	7.50	5.91	10.17	7.89	3.20	3.82	8.81	11.34
9	1.24	2.30	1.39	.88	< .01	< .01	6.30	11.35
11	< .01	< .01	< .01	< .01	< .01	< .01	< .01	11.11
13	< .01	< .01	< .01	< .01	< .01	< .01	< .01	11.40
OF								

	343
EPI	11.39
4	10.65
6	11.27
9	8.55
11	3.26
13	< .01
OF	

LAKE 302N NH3-N (ug/L) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	130	14	15	10	13	10	18	33
4	88	16	24	19	7	7	28	32
6	90	18	22	53	8	9	21	32
9	280	150	205	236	231	9	28	34
11	610	850	423	615	980	970	1170	31
13	2790	3430	469	609	745	1060	1390	39
OF			90		34	32	33	31

	343
EPI	29
4	80
6	51
9	146
11	405
13	682
OF	

LAKE 302N TDN (ug/L) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	360	435	296	281	300	295	265	300
4	390	470	299	284	298	305	250	310
6	420	520	309	373	374	305	265	320
9	690	650	553	517	511	280	295	315
11	910	1140	696	897	1420	1390	1965	290
13	3060	3930	851	885	1430	2870	3330	290
OF			399		318	330	220	345

	343
EPI	307
4	275
6	292
9	397
11	618
13	951
OF	

LAKE 302N NO3-N (ug/L) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	53	166	3	1	1	< 1	< 1	8
4	153	212	3	2	1	< 1	< 1	3
6	183	234	3	5	< 1	< 1	< 1	3
9	244	228	125	3	1	< 1	< 1	3
11	3	8	3	2	5	1	9	2
13	8	9	3	5	6	1	10	2
OF			66		28	35	24	2

	343
EPI	2
4	1
6	4
9	12
11	15
13	< 1
OF	

LAKE 302N Susp N (ug/L) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	90	63	59	82	63	89	42	17
4	60	79	92	85	43	86	33	54
6	63	110	315	104	81	117	57	51
9	113	380	122	317	550	439	42	56
11	486	340	359	278	343	331	247	51
13	945	1005	338	291	300	203	264	102
OF			< 1		40	25	70	1543

	343
EPI	79
4	28
6	31
9	68
11	56
13	950
OF	

LAKE 302N TDP (ug/L) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	5	5	5	4	5	3	3	4
4	6	7	5	4	4	3	3	4
6	7	9	7	10	10	5	3	4
9	10	8	7	9	9	8	3	4
11	16	56	6	31	48	19	16	3
13	200	445	14	35	14	46	28	3
OF			7		9	5	5	9

	343
EPI	5
4	3
6	3
9	4
11	6
13	6
OF	

LAKE 302N Susp P (ug/L) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	9	8	6	5	5	4	6	9
4	8	6	6	7	5	5	9	8
6	7	6	28	8	11	11	8	8
9	19	19	17	46	96	77	10	8
11	121	80	80	33	69	70	56	9
13	208	194	79	59	73	69	72	9
OF			5		5	4	10	176

	343
EPI	15
4	7
6	7
9	8
11	17
13	267
OF	

LAKE 302N DIC (uM/L) 1980

DEPTH(m)	DAY #							
	022	056	152	190	218	246	274	302
EPI	114	130	38	97	79	60	73	89
4	158	178	34	51	73	60	79	89
6	180	190	78	155	257	294	92	97
9	325	292	221	350	525	492	193	96
11	475	490	301	466	712	690	823	89
13	1210	1260	333	494	799	724	919	93
OF			130		205	140	135	102

	343
EPI	97
4	118
6	122
9	183
11	349
13	523
OF	

LAKE 302N DOC (uM/L) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	495	510	420	398	410	630		710
4	455	475	415	424	410	760		720
6	475	475	415	498	440	970		910
9	520	495	410	432	410	670		590
11	570	590	425	540	570	1040		570
13	1150	1220	471	531	535	960		1100
OF			380		390	950	660	740

	343
EPI	520
4	490
6	470
9	470
11	460
13	470
OF	

LAKE 302N Susp C (ug/L) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	700	540	720	820	670	690	600	710
4	630	500	860	920	700	720	630	730
6	590	550	2110	790	940	1300	720	690
9	850	840	970	2250	2860	2820	680	790
11	2790	2010	2900	1860	1670	1650	1840	690
13	6150	6030	2450	1840	2000	1690	1920	690
OF			380		260	330	760	14930

	343
EPI	950
4	550
6	550
9	530
11	790
13	5760
OF	

LAKE 302N SO4 (mg/L) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	2.8	2.6	2.8	3.1	3.0	3.0	3.2	2.9
4	3.0	2.4	2.8	3.1	3.0	3.0	3.2	2.8
6	3.0	2.4	2.9	3.0	3.0	2.9	3.1	2.7
9	3.4	2.4	2.7	2.9	3.0	2.7	3.1	2.8
11	1.4	1.8	2.7	2.8	2.4	1.8	1.0	2.9
13	5.8	.6	2.7	2.7	2.6	1.4	1.1	2.9
OF			2.7		3.2	2.9	3.2	3.1

	343
EPI	3.6
4	2.7
6	2.7
9	2.8
11	2.6
13	2.4
OF	

LAKE 302N Cl (mg/L) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	3.4	3.0	2.5	2.3	2.1	2.1	2.2	2.1
4	3.4	3.0	2.6	2.5	2.1	2.1	2.2	2.2
6	3.4	3.0	2.7	2.7	2.4	2.5	2.3	2.3
9	3.6	3.0	2.6	2.7	2.5	2.6	2.5	2.2
11	3.4	3.2	2.6	2.9	2.5	2.5	2.6	2.2
13	3.8	3.0	2.6	2.7	2.5	2.5	2.6	2.2
OF			2.5		2.0	2.1	2.4	2.3

	343
EPI	2.3
4	2.2
6	2.2
9	2.2
11	2.2
13	2.3
OF	

LAKE 302N Na (mg/L) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	1.07	1.09	1.06	.79	.92	.81	.78	.79
4	.78	1.09	1.16	.81	.90	.81	.89	.79
6	1.05	.92	.97	.79	.87	.79	.84	.79
9	1.22	1.22	1.21	.78	.95	.85	.84	.76
11	1.03	.88	.94	.76	.89	.81	.81	.76
13	.91	1.28	1.07	.73	.92	.79	.83	.81
OF			1.12		.82	.83	.79	.79

	343
EPI	.75
4	.71
6	.71
9	.71
11	.69
13	.74
OF	

LAKE 302N K (mg/L) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	.40	.42	.44	.38	.32	.40	.40	.40
4	.38	.40	.42	.38	.32	.40	.42	.40
6	.38	.42	.44	.36	.32	.40	.42	.40
9	.40	.42	.42	.32	.36	.46	.40	.40
11	.44	.46	.46	.34	.37	.46	.51	.42
13	.58	.64	.44	.36	.36	.46	.53	.44
OF			.40		.26	.36	.40	.45

	343
EPI	.40
4	.36
6	.39
9	.38
11	.38
13	.40
OF	

LAKE 302N Mg (mg/L) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	.62	.61	.64	.52	.54	.54	.58	.58
4	.61	.62	.61	.56	.58	.56	.56	.58
6	.58	.61	.61	.57	.61	.60	.57	.59
9	.61	.62	.63	.57	.66	.61	.57	.59
11	.65	.65	.64	.58	.67	.62	.58	.60
13	.75	.82	.63	.63	.67	.60	.61	.64
OF			.61		.60	.57	.60	.64

	343
EPI	.62
4	.66
6	.53
9	.62
11	.63
13	.69
OF	

LAKE 302N Ca (mg/L) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	1.94	1.83	1.78	1.42		1.54	1.49	1.65
4	1.83	1.83	1.74	1.51		1.58	1.49	1.65
6	1.78	1.83	1.78	1.60		1.76	1.48	1.60
9	1.67	1.78	1.87	1.51		.98	1.53	1.65
11	2.64	2.42	1.74	1.82		2.44	2.93	1.70
13	3.55	3.72	1.74	1.96		2.44	2.69	1.85
OF			1.74			1.67	1.57	1.75

	343
EPI	1.75
4	1.80
6	1.70
9	1.65
11	1.65
13	2.47
OF	

LAKE 302N Mn (mg/L) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	< .02	.02	.01	< .01	< .01	< .01	< .02	.03
4	< .02	.02	< .01	< .01	< .01	< .01	< .02	.03
6	< .02	.02	.03	.07	.11	.11	< .02	.03
9	.11	.14	.15	.33	.50	.63	.07	.03
11	.76	.66	.37	.42	.53	.63	.93	.02
13	2.95	2.51	.40	.43	.51	.64	.95	.02
OF			.03		.01	.03	< .02	.02

	343
EPI	.02
4	< .02
6	< .02
9	< .02
11	.03
13	1.13
OF	

LAKE 302N Fe (mg/L) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	< .03	< .03	.46	< .03	< .03	< .04	< .04	< .04
4	< .03	< .03	.04	< .03	< .03	< .04	< .04	< .04
6	< .03	.03	.04	.03	.10	< .04	< .04	< .04
9	.07	.03	.11	.07	.13	.15	< .04	< .04
11	1.11	1.96	.39	2.07	3.34	4.08	5.33	.04
13	22.80	25.00	1.20	2.34	2.38	4.89	6.53	.07
OF			.11		.03	.04	< .04	.04

	343
EPI	.04
4	< .04
6	< .04
9	< .04
11	.04
13	.14
OF	

LAKE 302N SRSi (mg/L) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	.119	.150	.075	.104	.129	.086	.124	.112
4	.177	.209	.064	.097	.144	.093	.116	.116
6	.207	.246	.022	.093	.013	.042	.142	.115
9	.455	.412	.405	.409	.519	.493	.230	.117
11	.622	.815	.569	.632	.657	.805	.956	.116
13	1.590	2.340	.584	.659	.472	.877	1.060	.113
OF			.161		.254	.247	.166	.078

	343
EPI	.030
4	.067
6	.100
9	.195
11	.423
13	.620
OF	

LAKE 302N Chl-a (ug/L) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	12.7	7.9	3.1	2.5	2.4	3.3	4.5	9.4
4	4.4	3.1	3.9	3.3	2.1	4.0	5.7	9.1
6	3.4	3.3	9.5	4.2	8.5	15.4	5.2	8.9
9	3.8	4.5	7.4	30.8	58.0	66.5	7.3	9.3
11	13.7	18.7	47.1	30.4	48.5	70.5	65.5	9.4
13	81.3	117.0	50.3	22.6	96.5	66.0	64.5	9.1
OF					1.0	.9		

	343
EPI	17.5
4	3.7
6	2.9
9	2.5
11	4.2
13	35.8
OF	

Appendix 12

Lake 302 north basin 1981 water chemistry data

LAKE 302N Temp (C) 1981

DEPTH(m) DAY #

	012	040	075	132	146	154	160	167
EPI				11.77			17.97	
4				10.33			16.16	
6				6.41			9.45	
8				5.59			6.43	
9				5.37			5.96	
10				5.29			5.89	
11				5.27			5.97	
13				5.26			5.72	
OF								

	174	182	188	195	202	210	216	223
EPI			24.48				22.54	
4			19.72				21.92	
6			13.22				13.82	
8			7.66				8.74	
9			7.05				7.82	
10			6.75				7.08	
11			6.57				6.82	
13			6.47				6.50	
OF							20.60	

	230	239	244	251	258	272	279	285
EPI			19.70			12.03		
4			19.70			12.11		
6			15.94			12.11		
8			9.19			11.95		
9			7.79			8.35		
10			7.47			7.40		
11			7.36			7.02		
13			7.76			6.82		
OF			16.50			9.00		

	294	300	348
EPI		3.99	
4		3.99	
6		3.99	
8		3.99	
9		3.99	
10		3.99	
11		3.99	
13		3.99	
OF		4.00	

LAKE 302N Cond (uS/cm) 1981

DEPTH(m) DAY #

	012	040	075	132	145	154	160	167
EPI	24	25	24	20	23		19	
4	25	24	24	20			19	
6	26	24	23	19			18	
8				21			21	
9	26	25	25	21			21	
10				22			22	
11	38	49	32	22			23	
13	111	124	80	22	22	23	22	23
OF							20	

	174	182	188	195	202	210	216	223
EPI	27		24		34		24	
4			24				23	
6			20				23	
8			23				25	
9			24				25	
10			25				26	
11			26				33	
13			28				41	
OF	26	21	21	28	21	23	31	23

	230	238	244	251	259	272	279	285
EPI	24		23		24	23		24
4			23			23		
6			23			23		
8			26			31		
9			24			61		
10			29			64		
11			43			69		
13			53			26	27	23
OF	23	23	24	25	23			

	294	300	348
EPI		24	24
4		23	25
6		23	26
8		23	25
9		23	26
10		23	27
11		23	28
13		23	31
OF	26	23	

LAKE 302N pH 1981

DEPTH(m)	DAY #							
	012	040	075	132	146	154	160	167
EPI	6.11	6.00	5.97	6.52	6.60		6.70	
4	6.02	5.91	5.95	6.61			6.76	
6	6.01	5.83	5.90	6.35			6.59	
8				6.06			6.10	
9	5.82	5.52	5.82	5.92			5.91	
10				5.90			5.90	
11	6.02	6.33	6.12	5.99			5.91	
13	6.40	6.52	6.51	5.98			5.93	
OF					6.30	6.40	6.38	6.44

	174	182	189	195	202	210	216	223
EPI	7.00		6.78		7.00		6.70	
4			6.78				6.61	
6			6.47				6.41	
8			5.91				5.83	
9			5.78				5.71	
10			5.89				5.71	
11			5.89				5.90	
13			5.96				6.19	
OF	6.49	6.69	6.53	6.55	6.78	6.19	6.29	6.35

	230	238	244	251	258	272	279	295
EPI	6.70		6.58		6.31	6.45		6.56
4			6.80			6.47		
6			6.72			6.49		
8			6.31			6.52		
9			5.84			5.85		
10			6.03			6.27		
11			6.12			6.30		
13			6.27			6.33		
OF	6.50	6.40	6.45	6.72	6.42	6.53	6.46	6.57

	294	300	349
EPI		6.60	6.39
4		6.59	6.48
6		6.59	6.53
8		6.60	6.33
9		6.60	6.28
10		6.60	6.22
11		6.57	6.14
13		6.60	6.12
OF	6.67	6.59	

LAKE 302N Alkal (uEq/L) 1981

DEPTH(m)	DAY #							
	012	040	075	132	146	154	160	167
EPI	52	62	56	67	61		61	
4	53	62	54	67			65	
6	53	59	55	51			63	
8				54			59	
9	41	25	58	56			80	
10				52			94	
11	59	147	75	50			89	
13	69	68	77	51			104	
OF					59	66	71	59

	174	182	189	195	202	210	216	223
EPI	89		53		53		53	
4			52				55	
6			65				64	
8			89				83	
9			119				78	
10			142				95	
11			149				140	
13			165				155	
OF	99	48	64		52	56	57	55

	230	238	244	251	258	272	279	295
EPI	53		54		55	55		61
4			54			58		
6			56			56		
8			61			53		
9			104			197		
10			154			304		
11			222			453		
13			214			400		
OF	53	53	51	55	56	94	82	66

	294	300	349
EPI		62	74
4		61	61
6		59	52
8		62	68
9		62	55
10		62	54
11		62	84
13		60	38
OF	65	60	

LAKE 302N O2 (mg/L) 1981

DEPTH(m)	DAY #							
	012	040	075	132	146	154	160	167
EPI	10.00	7.95	7.14	9.28			8.82	
4	9.10	7.25	6.05	10.56			9.74	
6	8.90	6.95	4.74	10.11			10.96	
8				8.53			5.47	
9	5.60	.18	1.25	6.44			1.57	
10				5.86			1.50	
11	< .01	< .01	< .01	5.13			.27	
13	< .01	< .01	< .01	4.91			.16	
OF								

	174	182	188	195	202	210	216	223
EPI			7.55				7.50	
4			8.40				7.68	
6			9.45				9.14	
8			3.76				2.23	
9			.31				.10	
10			< .01				.10	
11			< .01				< .01	
13			< .01				< .01	
OF								

	230	238	244	251	258	272	279	286
EPI			7.60			8.42		
4			7.42			8.31		
6			7.52			8.43		
8			1.83			7.80		
9			.27			< .01		
10			.12			< .01		
11			.26			< .01		
13			< .01			< .01		
OF								

	294	300	349
EPI		9.51	10.39
4		6.28	10.12
6		9.15	11.18
8		10.01	9.02
9		6.45	7.66
10		7.73	5.30
11		9.44	3.98
13		7.28	
OF			

LAKE 302N NH3-N (ug/L) 1981

DEPTH(m)	DAY #							
	012	040	075	132	146	154	160	167
EPI	61	21	27	13	9		6	
4	63	13	36	20			7	
6	66	18	28	15			6	
8				18			39	
9	96	114	228	30			175	
10				42			189	
11	517	908	579	69			249	
13	2542	3796	2500	71			255	
OF					22	26	22	19

	174	182	188	195	202	210	216	223
EPI	11		17		1		< 1	
4			16				< 1	
6			15				< 1	
8			61				< 1	
9			148				1	
10			306				152	
11			353				389	
13			418				603	
OF	26	6	10	22	3	7	4	1

	230	238	244	251	258	272	279	286
EPI	< 1		< 1		4	< 1		< 1
4			< 1			< 1		
6			< 1			< 1		
8			< 1			< 1		
9			< 1			450		
10			181			815		
11			606			1102		
13			812			1613		
OF	< 1	26	11	< 1	3	< 1	< 1	< 1

	294	300	349
EPI		< 1	29
4		< 1	27
6		< 1	21
8		< 1	35
9		< 1	100
10		< 1	167
11		< 1	251
13		< 1	445
OF	3	< 1	

LAKE 302N NO3-N (ug/L) 1981

DEPTH(m)	DAY #							
	012	040	075	132	146	154	160	167
EPI	14	67	123	3	2		< 1	
4	21	110	137	4			< 1	
6	25	134	175	1			< 1	
8				4			1	
9	120	254	185	20			1	
10				21			1	
11	8	13	12	19			6	
13	8	141	39	20			< 1	
OF					17	< 1	< 1	11

	174	182	188	195	202	210	216	223
EPI	1		3		< 1		< 1	
4			1				< 1	
6			7				2	
8			1				2	
9			1				1	
10			1				1	
11			< 1				< 1	
13			< 1				3	
OF	9	1	< 1	6	1	30	2	< 1

	230	238	244	251	258	272	279	286
EPI	< 1		4		11	< 1		< 1
4			1			< 1		
6			1			< 1		
8			< 1			< 1		
9			< 1			< 1		
10			< 1			< 1		
11			< 1			< 1		
13			< 1			< 1		
OF	< 1	8	4	1	8	< 1	< 1	< 1

	294	300	348
EPI		< 1	1
4		< 1	< 1
6		< 1	< 1
8		< 1	3
9		< 1	3
10		< 1	5
11		< 1	4
13		< 1	< 1
OF	< 1	< 1	

LAKE 302N TDN (ug/L) 1981

DEPTH(m)	DAY #							
	012	040	075	132	146	154	160	167
EPI	290	363	117	204	273		214	
4	296	342	110	217			216	
6	296	390	133	212			226	
8				218			276	
9	411	609	5518	251			451	
10				262			495	
11	773	1615	5546	290			555	
13	3457	5035	13093	309			597	
OF					277	313	277	324

	174	182	188	195	202	210	216	223
EPI	354		292		253		295	
4			296				294	
6			316				307	
8			415				321	
9			539				328	
10			752				495	
11			797				820	
13			920				1136	
OF	337	290	302	311	261	280	340	299

	230	238	244	251	258	272	279	286
EPI	256		228		300	213		181
4			225			214		
6			232			216		
8			210			224		
9			258			745		
10			446			1357		
11			1060			1606		
13			1203			2033		
OF	349	337	299	266	242	286	307	177

	294	300	348
EPI		292	296
4		271	314
6		273	305
8		276	351
9		290	410
10		273	515
11		263	640
13		287	911
OF	194	297	

LAKE 302W Susp N (ug/L) 1981

DEPTH(m)	DAY #							
	012	040	075	132	146	154	160	167
EPI	20	28	34	59	31		32	
4	104	12	34	36			11	
6	6	24	21				40	
8				44			127	
9	42	294	67	55			99	
10				50			121	
11	395	404	370	147			127	
13	812	1019	768	36			180	
OF					72	24	45	100

	174	182	189	195	202	210	216	223
EPI	154		34		31		66	
4			58				37	
6			92				131	
8			58				107	
9			195				173	
10			53				225	
11			499				223	
13			74				183	
OF	54	50	58	81	42	94	71	59

	230	238	244	251	258	272	279	286
EPI	134		77		41	66		94
4			77			42		
6			66			45		
8			140			69		
9			192			177		
10			337			206		
11			236			233		
13			219			240		
OF	71	142	49	68	73	48	95	163

	294	300	349
EPI		92	91
4		87	49
6		98	57
8		87	44
9		103	55
10		79	94
11		111	297
13		127	409
OF	105	77	

LAKE 302W TDP (ug/L) 1981

DEPTH(m)	DAY #							
	012	040	075	132	146	154	160	167
EPI	4	4	3	3	4		4	
4	4	4	3	3			4	
6	3	5	2	3			5	
9				3			8	
9	4	6	17	3			9	
10				4			12	
11	5	67	60	4			11	
13	77	290	73	4			13	
OF					5	7	6	5

	174	182	183	195	202	210	216	223
EPI	4		4		4		4	
4			5				4	
6			7				6	
8			12				9	
9			13				11	
10			11				10	
11			11				11	
13			15				17	
OF	5	5	4	4	4	5	5	4

	230	238	244	251	258	272	279	286
EPI	3		3		5	3		5
4			5			4		
6			6			3		
8			5			2		
9			8			7		
10			8			13		
11			14			10		
13			12			14		
OF	4	4	4	4	5	3	7	5

	294	300	349
EPI		5	3
4		4	3
6		6	2
8		5	3
9		4	3
10		4	4
11		4	4
13		4	5
OF	4	4	

LAKE 302N Susp P (ug/L) 1981

DEPTH(m)	DAY #							
	012	040	075	132	146	154	160	167
EPI	7	5	5	9	5		9	
4	7	6	6	11			8	
6	5	5	6	18			16	
8				17			21	
9	6	49	19	14			44	
10				18			31	
11	152	109	78	18			55	
13	278	290	269	21			64	
OF					6	6	7	10

	174	182	189	195	202	210	216	223
EPI	15		7		5		6	
4			8				7	
6			32				9	
8			33				16	
9			67				25	
10			29				39	
11			24				33	
13			30				37	
OF	7	6	7	5	6	7	6	5

	230	238	244	251	258	272	279	286
EPI	5		7		5	9		5
4			6			7		
6			6			6		
8			37			11		
9			13			32		
10			56			34		
11			47			40		
13			40			51		
OF	6	6	6	7	5	5	11	6

	294	300	349
EPI		10	9
4		10	8
6		10	9
8		10	11
9		10	10
10		8	13
11		9	13
13		8	83
OF	7	8	

LAKE 302N DIC (uM/L) 1981

DEPTH(m)	DAY #							
	012	040	075	132	146	154	160	167
EPI	134	190	187	73	87		85	
4	147	204	212	70			82	
6	152	232	246	94			106	
8				147			254	
9	218	374	314	198			415	
10				216			414	
11	475	639	493	239			441	
13	1436	1756	1150	249			434	
OF					119	145	133	114

	174	182	189	195	202	210	216	223
EPI	67		86		63		52	
4			88				82	
6			125				107	
8			301				344	
9			379				439	
10			432				502	
11			457				541	
13			477				593	
OF	113	21	95	98	68	97	106	95

	230	238	244	251	258	272	279	286
EPI	63		72		63	99		103
4			66			97		
6			69			95		
8			376			101		
9			397			652		
10			515			823		
11			601			866		
13			634			925		
OF	90	103	97	103	101	109	138	94

	294	300	349
EPI		93	74
4		87	83
6		93	65
8		94	109
9		90	143
10		90	200
11		86	245
13		86	358
OF	104	97	

LAKE 302N DOC (uM/L) 1981

DEPTH(m) DAY #

	012	040	075	132	146	154	160	167
EPI	490	460	890	600	470		440	
4	590	450	1540	450			440	
6	530	450	700	450			420	
8				420			390	
9	470	430	740	420			420	
10				530			420	
11	560	600	750	430			470	
13	1400	860	1190	730			410	
OF					330	440	410	530

	174	182	188	195	202	210	215	223
EPI	440		500		540		490	
4			490				500	
6			460				420	
8			390				420	
9			400				410	
10			430				420	
11			400				440	
13			420				470	
OF	390	410	460	520	710	460	490	460

	230	238	244	251	258	272	279	285
EPI	450		520		490	490		1490
4			560			450		
6			600			510		
8			470			490		
9			410			440		
10			400			650		
11			660			970		
13			500			1000		
OF	470	520	510	520	490	490	540	1970

	294	300	348
EPI		530	1040
4		520	840
6		850	910
8		580	520
9		560	720
10		690	1000
11		460	430
13		1130	540
OF	620	830	

LAKE 302N Susp C (ug/L) 1981

DEPTH(m) DAY #

	012	040	075	132	146	154	160	167
EPI	510	380	390	1130	550		510	
4	710	490	380	840			720	
6	350	400	440				780	
8				910			1150	
9	550	1230	640	820			920	
10				810			1180	
11	2570	2030	1940	960			1270	
13	4890	5440	3890	1020			1690	
OF					670	410	510	8990

	174	182	183	195	202	210	216	223
EPI	770		660		730		740	
4			820				810	
6			1000				1020	
8			1110				900	
9			1310				1080	
10			1140				1700	
11			1070				1490	
13			1050				1130	
OF	540	730	830	770	790	840	670	620

	230	238	244	251	258	272	279	285
EPI	950		740		610	590		570
4			670			420		
6			620			700		
8			1070			580		
9			1160			1500		
10			2130			1380		
11			1690			1640		
13			1850			1810		
OF	800	810	490	550	640	550	740	890

	294	300	348
EPI		950	350
4		710	650
6		810	770
8		770	610
9		810	730
10		700	820
11		890	980
13		970	3280
OF	920	730	

LAKE 302N Cl (mg/L) 1981

DEPTH(m)	DAY #							
	012	040	075	132	146	154	160	167
EPI	2.2	2.2	2.1	2.1	1.8		1.8	
4	2.1	2.2	2.3	2.0			1.8	
6	2.1	2.3	2.2	2.0			1.9	
8				2.1			1.9	
9	2.0	2.3	2.3	2.0			1.9	
10				2.0			1.9	
11	2.1	2.2	2.1	1.9			1.9	
13	2.2	2.3	2.0	1.9			1.9	
OF					1.8	1.9	1.8	1.8

	174	182	188	195	202	210	216	223
EPI	1.8		1.8		1.7		1.7	
4			1.8				1.7	
6			1.9				1.8	
8			1.9				1.8	
9			1.9				1.8	
10			1.9				1.8	
11			1.9				1.8	
13			1.9				1.8	
OF	1.9	1.8	1.8	1.7	1.6	1.7	1.6	1.6

	230	238	244	251	258	272	279	286
EPI	1.7		1.6		1.8	1.8		1.7
4			1.6			1.7		
6			1.6			1.7		
8			1.6			1.7		
9			1.6			1.7		
10			1.7			1.7		
11			1.7			1.7		
13			1.7			1.7		
OF	1.7	1.7	1.6	1.6	1.6	1.7	1.8	1.7

	294	300	345
EPI		5.6	1.7
4		1.7	1.7
6		1.7	1.8
8		1.7	1.7
9		1.8	1.7
10		1.7	1.6
11		1.8	1.7
13		1.8	1.7
OF	1.7	1.8	

LAKE 302N SO4 (mg/L) 1981

DEPTH(m)	DAY #							
	012	040	075	132	146	154	160	167
EPI	2.9	2.9	2.9	2.8	2.9		2.9	
4	2.9	2.9	2.8	2.9			2.9	
6	3.0	2.9	2.8	2.7			2.9	
8				2.8			2.7	
9	2.9	2.8	2.8	2.8			2.6	
10				2.8			2.7	
11	2.5	1.5	2.5	2.8			2.5	
13	.9	1.1	1.0	2.8			2.6	
OF					3.0	3.0	2.9	3.0

	174	182	188	195	202	210	216	223
EPI	3.0		3.1		3.2		3.2	
4			3.1				3.2	
6			2.8				3.0	
8			2.7				2.8	
9			2.7				2.8	
10			2.7				2.7	
11			2.7				2.8	
13			2.5				2.5	
OF	2.9	3.0	3.1	3.1	3.2	3.1	3.1	3.2

	230	238	244	251	258	272	279	286
EPI	3.1		3.5		3.3	3.2		3.1
4			3.4			3.2		
6			3.5			3.1		
8			3.9			3.1		
9			3.2			2.7		
10			2.8			2.0		
11			2.7			1.2		
13			2.0			1.2		
OF	3.0	3.4	3.5	3.5	3.2	3.2	3.3	3.3

	294	300	345
EPI		3.0	3.1
4		3.0	3.1
6		3.1	3.3
8		3.1	3.2
9		3.1	3.3
10		3.0	3.3
11		3.2	3.0
13		3.0	2.7
OF	3.1	3.0	

LAKE 302N H2S-S (mg/L) 1981

DEPTH(m)	DAY #							
	012	040	075	132	146	154	160	167
EPI								
4								
6			< .01					
8			< .01				< .01	
9			< .01				< .01	
10			< .01				< .01	
11			< .01				< .01	
13			< .01				< .01	
OF								

DEPTH(m)	DAY #							
	174	182	188	195	202	210	216	223
EPI								
4								
6							< .01	
8			< .01				< .01	
9			< .01				< .01	
10			< .01				< .01	
11			< .01				< .01	
13			< .01				.05	
OF								

DEPTH(m)	DAY #							
	230	238	244	251	258	272	279	286
EPI								
4								
6			< .01			< .01		
8			< .01			< .01		
9			< .01			< .01		
10			< .01			.20		
11			< .01			.53		
13			.40			1.09		
OF								

DEPTH(m)	DAY #		
	294	300	348
EPI			
4			
6	< .01	< .01	
8	< .01	< .01	
9	< .01	< .01	
10	< .01	< .01	
11	< .01	< .01	
13	< .01	< .01	
OF			

LAKE 302N Na (mg/L) 1991

DEPTH(m)	DAY #							
	012	040	075	132	146	154	160	167
EPI	.82	.69	.83	.78	.82		.71	
4	.80	.67	.78	.79			.71	
6	.82	.69	.78	.79			.70	
8				.82			.70	
9	.72	.66	.79	.90			.71	
10				.81			.71	
11	.74	.71	.78	.78			.73	
13	.93	.71	.79	.82			.73	
OF					.90	.78	.71	.73

DEPTH(m)	DAY #							
	174	182	188	195	202	210	216	223
EPI	1.06		.75		.75		.91	
4			.77				.81	
6			.77				.79	
8			.77				.78	
9			.73				.81	
10			.75				.80	
11			.77				.79	
13			.73				.79	
OF	.68	.72	.77	.82	.75	.74	.78	.71

DEPTH(m)	DAY #							
	230	238	244	251	258	272	279	286
EPI	.94		.87		.89	.99		.95
4			.89			.95		
6			.94			.98		
8			1.10			.93		
9			.92			.95		
10			1.03			.93		
11			1.03			.99		
13			.99			.93		
OF	.81	.87	.92	.91	.84	.99	1.02	.95

DEPTH(m)	DAY #		
	294	300	348
EPI		.81	.87
4		.78	.84
6		.81	.86
8		.80	.86
9		.83	.94
10		.80	.84
11		.83	.86
13		.83	.89
OF	.85	.81	

LAKE 302N K (mg/L) 1991

DEPTH(m)	DAY #							
	012	040	075	132	146	154	160	167
EPI	.44	.42	.35	.36	.40		.39	
4	.40	.40	.33	.36			.40	
6	.42	.42	.33	.34			.40	
8				.35			.42	
9	.40	.40	.37	.34			.44	
10				.36			.45	
11	.44	.48	.35	.34			.42	
13	.52	.66	.43	.38			.44	
OF					.38	.46	.40	.40

	174	182	189	195	202	210	216	223
EPI	.41		.39		.37		.42	
4			.41				.42	
6			.40				.42	
8			.40				.44	
9			.43				.45	
10			.45				.44	
11			.46				.49	
13			.45				.51	
OF	.31	.37	.40	.37	.37	.44	.40	.31

	230	238	244	251	259	272	279	286
EPI	.49		.51		.35	.38		.44
4			.51			.35		
6			.53			.36		
8			.54			.35		
9			.56			.45		
10			.58			.47		
11			.60			.53		
13			.59			.51		
OF	.43	.43	.47	.47	.33	.40	.44	.46

	294	300	345
EPI		.50	.49
4		.48	.47
6		.46	.51
8		.48	.49
9		.48	.49
10		.48	.49
11		.48	.43
13		.48	.47
OF	.50	.48	

LAKE 302N Ca (mg/L) 1991

DEPTH(m)	DAY #							
	012	040	075	132	146	154	160	167
EPI	1.75	1.92	1.86	1.73	1.87		1.68	
4	1.85	1.80	1.80	1.82			1.73	
6	1.85	1.80	1.80	1.82			1.82	
8				1.78			1.78	
9	1.75	1.82	1.92	1.78			1.87	
10				1.78			1.87	
11	2.52	3.90	2.35	1.79			1.96	
13	4.48	5.08	4.27	1.82			1.91	
OF					1.69	1.91	1.78	1.71

	174	182	189	195	202	210	216	223
EPI	1.76		1.68		1.69		1.52	
4			1.69				1.65	
6			1.78				1.65	
8			1.82				1.70	
9			1.63				1.52	
10			1.82				1.22	
11			1.92				1.91	
13			2.01				2.22	
OF	1.82	1.98	1.63	1.92	1.73	1.57	1.57	1.48

	230	238	244	251	258	272	279	286
EPI	1.64		1.73		1.71	1.95		1.71
4			1.69			1.67		
6			1.64			1.71		
8			1.82			1.76		
9			1.23			3.30		
10			1.55			4.53		
11			2.78			4.31		
13			2.73			4.09		
OF	1.64	1.69	1.60	1.69	1.76	2.20	2.02	1.90

	294	300	349
EPI		1.89	1.78
4		1.84	1.82
6		1.89	1.86
8		1.75	1.82
9		1.75	1.78
10		1.75	1.86
11		1.62	1.86
13		1.80	1.95
OF	1.80	1.75	

LAKE 302N Mg (mg/L) 1981

DEPTH(m)	DAY #							
	012	040	075	132	146	154	160	167
EPI	.62	.70	.69	.60	.66		.59	
4	.64	.68	.68	.61			.60	
6	.64	.69	.68	.51			.63	
8				.60			.62	
9	.64	.68	.69	.51			.64	
10				.60			.63	
11	.66	.74	.69	.63			.66	
13	.80	1.00	.80	.64			.67	
OF					.61	.70	.64	.60

	174	182	183	195	202	210	216	223
EPI	.53		.58		.59		.56	
4			.58				.59	
6			.59				.58	
8			.60				.60	
9			.60				.60	
10			.62				.60	
11			.59				.61	
13			.59				.61	
OF	.57	.72	.56	.64	.62	.59	.58	.55

	230	238	244	251	258	272	279	295
EPI	.62		.69		.67	.61		.63
4			.66			.65		
6			.65			.66		
8			.70			.65		
9			.69			.72		
10			.71			.71		
11			.70			.67		
13			.70			.72		
OF	.63	.64	.68	.62	.69	.68	.68	.65

	294	300	348
EPI		.66	.72
4		.67	.73
6		.73	.75
8		.66	.72
9		.66	.72
10		.65	.73
11		.65	.73
13		.67	.74
OF	.68	.66	

LAKE 302N Mn (mg/L) 1981

DEPTH(m)	DAY #							
	012	040	075	132	146	154	160	167
EPI	< .02	< .02	< .02	.01	< .01			
4	< .02	< .02	< .02	< .01				
6	< .02	< .02	.04	< .01				
8				.01				
9	.02	.12	.13	.04				
10				.07				
11	.32	1.06	.41	.11				
13	2.80	3.32	1.35	.11				
OF					< .01	.03		.02

	174	182	183	195	202	210	216	223
EPI	< .02		< .02		< .02		< .01	
4			< .02				< .01	
6			.02				< .01	
8			.18				.17	
9			.29				.29	
10			.39				.45	
11			.39				.46	
13			.38				.47	
OF	< .02	.02	.02	< .02	< .02	< .02	.01	.01

	230	238	244	251	258	272	279	295
EPI	< .01		< .01		.01	.03		.03
4			< .01			.03		
6			< .01			.03		
8			.25			.10		
9			.47			.75		
10			.55			.73		
11			.55			.76		
13			.52			.78		
OF	< .01	.03	< .01	< .01	.01	.03	.07	.03

	294	300	348
EPI		< .01	< .02
4		< .01	< .02
6		< .01	< .02
8		< .01	< .02
9		< .01	< .02
10		< .01	< .02
11		< .01	< .02
13		< .01	.49
OF	.03	< .01	

LAKE 302N Fe (mg/L) 1981

DEPTH(m)	DAY #							
	012	040	075	132	146	154	160	167
EPI	< .03	< .03	.04	< .03	.05		.07	
4	.03	< .03	.04	.03			.05	
6	.03	< .03	.04	.03			.07	
8				.03			.07	
9	.07	.03	.24	.03			.16	
10				.03			.21	
11	.24	5.16	1.26	.05			.10	
13	18.50	21.30	16.00	.05			.37	
OF					.16	.05	.09	< .02

	174	182	189	195	202	210	216	223
EPI	.09		< .02		< .03		.03	
4			< .02				.03	
6			.02				.05	
8			.21				.21	
9			.30				.23	
10			.61				.34	
11			.75				1.02	
13			1.25				2.15	
OF	.09	.02	.02	.03	.03	.03	.05	.03

	230	238	244	251	258	272	279	286
EPI	< .04		< .04		.09	.12		.03
4			< .04			.12		
6			< .04			.12		
8			.14			.15		
9			.11			2.03		
10			.14			4.84		
11			2.54			5.44		
13			2.69			6.04		
OF	.04	.14	< .04	.07	.09	.12	.18	.03

	294	300	348
EPI		.03	< .04
4		.03	< .04
6		.03	< .04
8		.03	< .04
9		.03	< .04
10		.03	< .04
11		.03	.08
13		< .03	.12
OF	.03	< .03	

LAKE 302N Ferrous-Fe (mg/L) 1981

DEPTH(m)	DAY #							
	012	040	075	132	146	154	160	167
EPI				< .01			< .01	
4				< .01			< .01	
6				< .01			< .01	
8				< .01			< .01	
9				< .01			< .01	
10				< .01			< .01	
11				< .01			< .01	
13				< .01			.01	
OF							< .01	

	174	182	189	195	202	210	216	223
EPI			< .01				< .01	
4			< .01				< .01	
6			< .01				< .01	
8			< .01				.01	
9			< .01				.01	
10			.36				.11	
11			.72				1.05	
13			1.13				1.71	
OF			.02				.03	

	230	238	244	251	258	272	279	286
EPI			< .01			.02		
4			< .01			< .01		
6			< .01			< .01		
8			.01			.01		
9			< .01			.48		
10			.06			1.84		
11			.85			1.95		
13			2.69			3.76		
OF			.02			.01		

	294	300	348
EPI		< .01	< .01
4		< .01	< .01
6		< .01	< .01
8		< .01	< .01
9		< .01	< .01
10		< .01	< .01
11		< .01	.29
13		< .01	.13
OF			

LAKE 302N Susp Fe (ug/L) 1981

DEPTH(m)	DAY #							
	012	040	075	132	146	154	160	167
EPI	490		3	40	16		89	
4	590		9	51			89	
6	530		44	91			99	
8				79			104	
9	470		264	109			275	
10				119			257	
11	560		834	139			584	
13	1400		856	144			925	
OF					23	11	65	54

	174	182	188	195	202	210	216	223
EPI	6		34		29		85	
4			38				86	
6			129				61	
8			283				227	
9			329				302	
10			615				1102	
11			640				1012	
13			310				133	
OF	57	52	95	35	50	36	83	28

	230	238	244	251	258	272	279	286
EPI	55		26		17	79		81
4			21			56		
6			21			83		
8			160			123		
9			186			957		
10			1331			170		
11			533			164		
13			173			150		
OF	89	23	60	39	23	40	101	94

	294	300	349
EPI		89	33
4		99	51
6		99	32
8			81
9		107	109
10		114	210
11		109	344
13		109	1475
OF	116	109	

LAKE 302N SRSi (mg/L) 1981

DEPTH(m)	DAY #							
	012	040	075	132	146	154	160	167
EPI	.066	.080	.139	.105	.055		.049	
4	.090	.119	.158	.098			.035	
6	.105	.150	.201	.041			.016	
8				.066			.027	
9	.238	.435	.383	.135			.013	
10				.134			.013	
11	.561	1.150	.702	.160			.014	
13	2.090	2.850	1.820	.168			.023	
OF					.082	.059	.067	.091

	174	182	188	195	202	210	216	223
EPI	.072		.237		.255		.222	
4			.193				.091	
6			.044				.068	
8			.061				.083	
9			.054				.092	
10			.105				.173	
11			.127				.135	
13			.149				.279	
OF	.083	.177	.262	.270	.256	.238	.217	.192

	230	238	244	251	258	272	279	286
EPI	.144		.103		.088	.096		.153
4			.103			.095		
6			.099			.117		
8			.009			.106		
9			.069			.417		
10			.280			.506		
11			.352			.564		
13			.411			.658		
OF	.153	.120	.116	.212	.092	.193	.358	.199

	294	300	349
EPI		.123	.106
4		.122	.123
6		.124	.097
8		.121	.169
9		.122	.242
10		.123	.323
11		.124	.439
13		.122	.721
OF	.152	.124	

LAKE 302N Chl-a (ug/L) 1981

DEPTH(m)	DAY #							
	012	040	075	132	146	154	160	157
EPI	3.7	1.8	2.2	4.1	3.0		2.6	
4	1.3	.9	2.4	5.3			3.3	
6	1.4	1.1	2.0	17.2			4.2	
8				18.7			18.4	
9	1.6	2.9	2.5	7.8			14.2	
10				8.3			16.1	
11	8.1	22.2	5.2	6.7			21.8	
13	52.1	81.0	70.1	6.8			25.1	
OF								

	174	182	188	195	202	210	216	223
EPI	1.6		1.9		2.9		2.1	
4			2.5				3.4	
6			3.1				4.4	
8			16.8				6.3	
9			24.3				25.3	
10			17.4				43.8	
11			15.9				27.6	
13			15.1				25.1	
OF								

	230	238	244	251	258	272	279	285
EPI	3.3		2.1		3.0	3.3		4.6
4			2.4			3.6		
6			2.7			3.1		
8			13.1			40.7		
9			12.6			34.3		
10			40.9			43.9		
11			26.8			35.0		
13			28.9			2.5		
OF								

	294	300	348
EPI		7.9	4.9
4		7.9	3.1
6		7.7	6.9
8		7.8	2.5
9		8.4	2.8
10		8.4	3.5
11		8.8	3.9
13		7.4	7.8
OF			

LAKE 302N Colour (abs425nm) 1981

DEPTH(m)	DAY #							
	012	040	075	132	146	154	160	157
EPI				.027			.027	
4				.026			.030	
6				.029			.034	
8				.027			.039	
9				.027			.054	
10				.028			.057	
11				.030			.064	
13				.031			.077	
OF							.042	

	174	182	188	195	202	210	216	223
EPI			.035					
4			.045					
6			.034					
8			.065					
9			.078					
10			.111					
11			.132					
13			.199					
OF			.044					

	230	238	244	251	258	272	279	285
EPI			.034			.054		
4			.040			.057		
6			.034			.046		
8			.035			.069		
9			.073			.085		
10			.090			.063		
11			.215			.085		
13			.149			.075		
OF			.056			.073		

	294	300	348
EPI		.035	.083
4		.037	.082
6		.038	.081
8		.039	.095
9		.043	.107
10		.037	.132
11		.041	.183
13		.038	.460
OF		.036	

Appendix 13

Lake 302 north basin 1982 water chemistry data

LAKE 302N Temp (C) 1982

DEPTH(m) DAY #

	012	040	068	124	131	138	145	152
EPI						11.44		
4						9.77		
6						5.51		
8						4.79		
9						4.67		
10						4.59		
11						4.57		
13						4.56		
OF								

	159	166	180	181	182	183	184	185
EPI		16.45						
4		14.92						
6		8.77						
8		6.76						
9		6.59						
10		6.46						
11								
13								
OF								

	186	187	188	189	193	194	195	196
EPI						21.73		
4						18.03		
6						8.74		
8						6.02		
9						5.56		
10						5.28		
11						5.10		
13						5.01		
OF								

	201	202	203	204	207	208	210	215
EPI								
4								
6								
8								
9								
10								
11								
13								
OF								

	217	222	224	225	229	231	232	235
EPI		19.42						
4		19.15						
6		9.67						
8		6.53						
9		5.82						
10		5.56						
11		5.41						
13		5.29						
OF								

	238	243	244	245	250	252	257	259
EPI					15.66			
4					15.66			
6					12.83			
8					7.00			
9					6.22			
10					6.01			
11					5.82			
13					5.59			
OF								

	264	266	271	273	278	280	285	287
EPI					10.47			
4					10.47			
6					10.47			
8					10.02			
9					6.61			
10					6.00			
11					5.81			
13					5.66			
OF								

	292	298	349
EPI		6.51	
4		6.51	
6		6.51	
8		6.51	
9		6.51	
10		6.51	
11		6.51	
13		6.51	
OF			

LAKE 302N Cond (uS/cm) 1982

DEPTH(m) DAY #

	012	040	068	124	131	138	145	152
EPI		26	25	24		24		24
4	26	25	25			21		
6	25	25	25			21		
8	26	26	25			24		
9	25	25	25			25		
10	27	25	26			25		
11	27	25	28			27		
13	58	73	75			40		
OF					13	25	24	24

	159	166	180	181	182	183	184	185
EPI		23	22	26	23			
4		24						
6		23						
8		26						
9		27						
10		30						
11		36						
13		40						
OF	24							

	186	187	188	189	193	194	195	196
EPI	23	22	23	23		22		
4						22		
6						24		
8						25		
9						33		
10						39		
11						40		
13						44		
OF								

	201	202	203	204	207	208	210	215
EPI	23		23		22	23	24	22
4								
6								
8								
9								
10								
11								
13								
OF								

	217	222	224	225	229	231	232	235
EPI	22	25	22		23	24		23
4		24						
6		23						
8		28						
9		28						
10		41						
11		46						
13		48						
OF								

	238	243	244	245	250	252	257	259
EPI	22	23	24	25	24	24	24	25
4					25			
6					25			
8					23			
9					30			
10					43			
11					50			
13					53			
OF								

	264	266	271	273	278	280	285	287
EPI	24	24	24	23	23	23	24	24
4					23			
6					25			
8					23			
9					26			
10					55			
11					58			
13					62			
OF								

	292	298	348
EPI	24	27	27
4		25	29
6		25	27
8		26	27
9		27	
10		25	28
11		25	29
13		25	53
OF			

LAKE 302N pH 1982

DEPTH(m) DAY #

	012	040	068	124	131	138	145	152
EPI		6.27	5.90	6.15		6.59		6.65
4	6.31	6.10	5.81			6.40		
6	6.29	6.02	5.82			5.95		
8	6.20	5.78	5.53			6.85		
9	6.06	5.70	5.51			5.94		
10	5.95	5.68	5.47			5.90		
11	5.93	5.67	5.91			5.90		
13	6.41	6.65	6.51			6.15		
OF					6.35	6.30	6.51	6.45

	159	165	180	181	182	193	194	195
EPI		6.40	6.60	6.31	6.41			
4		6.37						
6		6.08						
8		5.84						
9		5.80						
10		5.90						
11		6.08						
13		6.22						
OF	6.56							

	186	187	188	189	193	194	195	196
EPI	6.64	6.47	6.53	6.44		6.60		6.90
4						6.39		
6						5.97		
8						5.70		
9						6.01		
10						6.07		
11						6.10		
13						6.18		
OF								

	201	202	203	204	207	208	210	215
EPI	6.82	6.60	6.68	6.60	6.70	6.69	6.67	6.60
4								
6								
8								
9								
10								
11								
13								
OF								

	217	222	224	225	229	231	232	236
EPI	6.69	6.69	6.70	6.62	6.85	6.69	6.72	6.79
4								
6		6.70						
8		5.75						
9		5.72						
10		6.05						
11		6.10						
13		6.14						
OF								

	238	243	244	245	250	252	257	259
EPI	6.61	6.72	6.39	6.46	6.78	6.39	6.45	6.56
4					6.89			
6					6.49			
8					5.59			
9					5.92			
10					6.25			
11					6.40			
13					6.40			
OF								

	264	266	271	273	278	280	285	287
EPI	6.50	6.38	6.31	6.05	6.18	6.15	6.09	6.10
4					6.12			
6					6.14			
8					5.96			
9					5.78			
10					6.26			
11					6.30			
13					6.30			
OF								

	292	298	345
EPI	6.10	6.29	5.85
4		6.23	5.90
6		6.22	5.90
8		6.22	5.89
9		6.21	
10		6.21	5.79
11		6.19	5.66
13		6.19	6.12
OF			

LAKE 302N Alkal (uEq/L) 1982

DEPTH(m) DAY #

	012	040	069	124	131	138	145	152
EPI	74	72	76	66		54		63
4	67	65	68			62		
6	60		66			61		
8	68	51	45			73		
9	65	38	45			93		
10	33	43	41			108		
11	29	24	94			119		
13	96	353	417			119		
OF					64	163	66	62

	159	166	180	181	182	183	184	185
EPI		87	57	37	29	42		19
4		65						
6		76						
8		89						
9		90						
10		109						
11		168						
13		223						
OF	59							

	186	187	188	189	193	194	195	196
EPI	33	37	26	21	34	34	23	32
4						45		
6						73		
8						74		
9						129		
10						195		
11						214		
13						252		
OF								

	201	202	203	204	207	208	210	215
EPI	31	27	30	32	27		33	33
4								
6								
8								
9								
10								
11								
13								
OF								

	217	222	224	225	229	231	232	236
EPI	21	34	30	32	29	32	34	35
4		35						
6		70						
8		80						
9		122						
10		231						
11		280						
13		303						
OF								

	238	243	244	245	250	252	257	259
EPI	33	40	28	28	34	21	29	30
4					34			
6					43			
8					43			
9					191			
10					298			
11					346			
13					392			
OF								

	264	266	271	273	278	280	285	287
EPI	35	31	31	27	33	34	36	40
4					31			
6					31			
8					33			
9					37			
10					432			
11					440			
13					472			
OF								

	292	298	349
EPI	42	48	63
4		49	55
6		50	52
8		50	59
9		50	61
10		49	67
11		49	171
13		50	299
OF			

LAKE 302N 02 (mg/L.) 1982

DEPTH(m)	DAY #							
	012	040	069	124	131	138	145	152
EPI	11.82	10.07	10.06			10.67		
4	7.97	10.40	7.45			10.63		
6		8.82	5.23			7.15		
8	7.49	5.09	1.61			5.46		
9	4.99	1.78	.92			1.75		
10	1.42	.31	.28			.10		
11	.17	< .01	.09			< .01		
13		< .01	< .01			< .01		
OF								

	159	166	180	181	182	183	184	185
EPI		9.27	9.43					
4		9.83						
6		9.96						
8		2.07						
9		.20						
10		< .01						
11		< .01						
13		< .01						
OF								

	185	187	188	189	193	194	195	196
EPI						8.73		
4						9.13		
6						6.25		
8						.51		
9						< .01		
10						< .01		
11						< .01		
13						< .01		
OF								

	201	202	203	204	207	208	210	215
EPI								
4								
6								
8								
9								
10								
11								
13								
OF								

	217	222	224	225	229	231	232	235
EPI		8.81						
4		8.72						
6		8.46						
8		.24						
9		< .01						
10		< .01						
11		< .01						
13		< .01						
OF								

	239	243	244	245	250	252	257	259
EPI					10.70			
4					9.82			
6					8.91			
8					.29			
9					.10			
10					.23			
11					< .01			
13					< .01			
OF								

	264	266	271	273	278	280	285	287
EPI					9.75			
4					9.61			
6					9.56			
8					8.93			
9					6.84			
10					< .01			
11					< .01			
13					< .01			
OF								

	292	298	348
EPI		9.78	11.16
4		9.76	10.67
6		10.58	10.50
8		9.61	9.84
9		9.53	8.00
10		9.25	5.32
11		9.38	.50
13		9.66	< .01
OF			

LAKE 302N NH3-N (ug/L.) 1982

DEPTH(m) DAY #

	012	040	068	124	131	139	145	152
EPI	43	51	< 1	7		< 1		< 1
4	50	31	< 1			< 1		
6	58	37	< 1			< 1		
8	85	94	35			32		
9	190	185	55			140		
10	394	267	218			250		
11	549	351	356			340		
13	1031	1304	1575			531		
OF				< 1	< 1	< 1	< 1	< 1

	159	166	180	181	182	183	194	195
EPI		< 1	< 1	< 1	< 1	< 1	< 1	< 1
4		< 1						
6		< 1						
8		< 1						
9		105						
10		238						
11		374						
13		508						
OF	3							

	186	187	188	189	193	194	195	196
EPI	< 1	< 1	< 1	3		< 1	< 1	
4						< 1		
6						< 1		
8						55		
9						277		
10						462		
11						523		
13						662		
OF								

	201	202	203	204	207	208	210	215
EPI	< 1				< 1	42	2	14
4								
6								
8								
9								
10								
11								
13								
OF								

	217	222	224	225	229	231	232	235
EPI	1	4	1		2	6		27
4		2						
6		1						
8		151						
9		227						
10		538						
11		610						
13		894						
OF								

	238	243	244	245	250	252	257	259
EPI	21	19	9	15	16	22	19	31
4					25			
6					21			
8					84			
9					299			
10					588			
11					782			
13					1082			
OF								

	264	266	271	273	278	290	295	297
EPI	4	12	23	26	26	50	66	79
4					23			
6					26			
8					43			
9					86			
10					977			
11					1480			
13					1704			
OF								

	292	298	348
EPI	91	115	139
4		106	139
6		119	139
8		114	163
9		122	214
10		100	332
11		113	653
13		151	1182
OF			

LAKE 302W NO2-N (ug/L) 1982

DEPTH(m) DAY #

	012	040	069	124	131	138	145	152
EPI						< 1		
4						< 1		
6						< 1		
8						< 1		
9						< 1		
10						2		
11						1		
13						< 1		
OF					< 1	< 1	< 1	< 1

	159	166	180	181	182	183	134	185
EPI		< 1	< 1	< 1	3	< 1	< 1	< 1
4		< 1						
6		< 1						
8		< 1						
9		< 1						
10		< 1						
11		< 1						
13		< 1						
OF								

	186	187	188	189	193	194	195	196
EPI	< 1	< 1	< 1			< 1		
4						< 1		
6						< 1		
8						< 1		
9						< 1		
10						< 1		
11						< 1		
13						< 1		
OF								

	201	202	203	204	207	208	210	215
EPI	< 1				< 1			2
4								
6								
8								
9								
10								
11								
13								
OF								

	217	222	224	225	229	231	232	236
EPI		< 1			< 1			< 1
4		< 1						
6		< 1						
8		< 1						
9		< 1						
10		< 1						
11		< 1						
13		< 1						
OF								

	239	243	244	245	250	252	257	259
EPI		4			5		5	
4					2			
6					2			
8					< 1			
9					< 1			
10					< 1			
11					< 1			
13					< 1			
OF								

	264	266	271	273	278	280	285	287
EPI	3		2		5		4	
4					3			
6					2			
8					< 1			
9					2			
10					1			
11					1			
13					< 1			
OF								

	292	298	348
EPI	4	7	3
4		6	2
6		5	1
8		5	< 1
9		5	1
10		5	< 1
11		5	5
13		5	< 1
OF			

LAKE 302N NO3-N (ug/L) 1982

DEPTH(m)	DAY #							
	012	040	068	124	131	138	145	152
EPI	< 1	14	112	72		< 1		< 1
4	8	47	150			4		
6	11	57	207			85		
8	21	156	343			100		
9	50	205	372			79		
10	57	152	152			59		
11	20	< 1	4			5		
13	3	< 1	< 1			< 1		
OF					11	< 1	< 1	< 1

	159	165	180	181	182	193	194	195
EPI		< 1	< 1	315	234	239	241	277
4		< 1						
6		< 1						
8		85						
9		32						
10		< 1						
11		< 1						
13		< 1						
OF	< 1							

	186	187	189	189	193	194	195	196
EPI	238	191	293	277		201	291	
4						91		
6						7		
8						9		
9						< 1		
10						1		
11						< 1		
13						< 1		
OF								

	201	202	203	204	207	208	210	215
EPI	209		287		218	202	215	209
4								
6								
8								
9								
10								
11								
13								
OF								

	217	222	224	225	229	231	232	236
EPI	226	176	239	217	185	235	219	210
4		158						
6		< 1						
8		1						
9		1						
10		1						
11		< 1						
13		< 1						
OF								

	238	243	244	245	250	252	257	259
EPI	222	188	333	351	281	425	355	322
4					283			
6					240			
8					< 1			
9					2			
10					1			
11					< 1			
13					1			
OF								

	264	266	271	273	278	280	285	297
EPI	310	397	228	293	332	332	312	319
4					341			
6					344			
8					332			
9					294			
10					13			
11					9			
13					2			
OF								

	292	298	349
EPI	291	281	296
4		289	307
6		301	314
8		303	307
9		288	274
10		316	240
11		298	111
13		294	3
OF			

LAKE 302N TDN (ug/L) 1982

DEPTH(m) DAY #

	012	040	068	124	131	139	145	152
EPI	334	418	434	387		256		298
4	351	368	398			307		
6	387	360	349			335		
8	1202	495	519			431		
9	528	622	569			557		
10	750	692	631			493		
11	972	613	720			689		
13	1471	1627	2365			946		
OF					377	298	315	316

	159	166	180	181	182	183	184	185
EPI		347	258	592				
4		340						
6		326						
8		494						
9		566						
10		695						
11		828						
13		1032						
OF	324							

	186	187	189	189	193	194	195	196
EPI		408				465		
4						348		
6						272		
8						340		
9						545		
10						807		
11						824		
13						1042		
OF								

	201	202	203	204	207	208	210	215
EPI	547				575			594
4								
6								
8								
9								
10								
11								
13								
OF								

	217	222	224	225	229	231	232	236
EPI		394			516	576		519
4		408						
6		231						
8		383						
9		495						
10		896						
11		1111						
13		1359						
OF								

	238	243	244	245	250	252	257	259
EPI	521	524		799	505		708	
4					569			
6					501			
8					328			
9					595			
10					873			
11					1039			
13					1351			
OF								

	264	266	271	273	278	280	285	287
EPI	515		586		630		629	
4					598			
6					520			
8					504			
9					542			
10					1281			
11					1986			
13					2215			
OF								

	292	298	349
EPI	636	637	700
4		622	691
6		646	713
8		636	689
9		650	757
10		646	877
11		651	1119
13		665	1667
OF			

LAKE 302N Susp N (ug/L) 1992

DEPTH(m) DAY #

	012	040	068	124	131	138	145	152
EPI	97	52	55	126		107		97
4	77	19	9			94		
6	69	18	13			88		
8	64	48	34			13		
9	99	120	52			85		
10	107	95	112			119		
11	127	267	125			144		
13	529	490	286			201		
OF					76	94	25	114

	159	166	180	181	182	193	134	195
EPI		117	87					
4		109						
6		169						
8		163						
9		225						
10		234						
11		218						
13		253						
OF	67							

	185	187	188	189	193	194	195	196
EPI		144				81		
4						89		
6						62		
8						164		
9						181		
10						175		
11					>	125		
13						173		
OF								

	201	202	203	204	207	208	210	215
EPI	237				73			86
4								
6								
8								
9								
10								
11								
13								
OF								

	217	222	224	225	229	231	232	235
EPI		81			60			58
4		89						
6		149						
8		212						
9		241						
10		218						
11		212						
13		202						
OF								

	238	243	244	245	250	252	257	259
EPI		57			84		74	
4					79			
6					94			
8					260			
9					303			
10					298			
11					310			
13					295			
OF								

	264	266	271	273	278	280	285	287
EPI	72		113		94		81	
4					92			
6					94			
8					39			
9					100			
10					252			
11					211			
13					249			
OF								

	292	298	348
EPI	87	202	106
4		81	75
6		92	80
8		71	62
9		85	70
10		92	77
11		90	250
13		120	498
OF			

LAKE 302W TDP (ug/L) 1982

DEPTH(m) DAY #

	012	040	068	124	131	138	145	152
EPI	4	4	3	5		3		4
4	4	5	5			3		
6	4	4	5			4		
8	4	6	7			4		
9	5	6	6			5		
10	6	5	6			5		
11	6	6	9			6		
13	9	22	77			7		
OF					5	4	4	5

	159	166	180	181	182	183	184	185
EPI		3	3	4				
4		4						
6		5						
8		5						
9		4						
10		5						
11		6						
13		8						
OF	3							

	186	187	188	189	193	194	195	196
EPI		4				3		
4						3		
6						5		
8						6		
9						7		
10						8		
11						7		
13						10		
OF								

	201	202	203	204	207	208	210	215
EPI	4				4			5
4								
6								
8								
9								
10								
11								
13								
OF								

	217	222	224	225	229	231	232	235
EPI		3			4	5		6
4		3						
6		4						
8		5						
9		7						
10		7						
11		7						
13		9						
OF								

	238	243	244	245	250	252	257	259
EPI	5	9		5	4		5	
4					4			
6					5			
8					6			
9					7			
10					7			
11					8			
13					9			
OF								

	264	266	271	273	278	280	285	287
EPI	3		3		4		6	
4					4			
6					4			
8					5			
9					5			
10					8			
11					27			
13					11			
OF								

	292	298	348
EPI	5	5	5
4		5	5
6		9	6
8		7	5
9		8	5
10		13	5
11		8	6
13		8	10
OF			

LAKE 302W Susp P (ug/L) 1982

DEPTH(m) DAY #

	012	040	068	124	131	139	145	152
EPI	5	6	4	12		9		7
4	5	9	4			15		
6	6	10	4			12		
8	6	11	8			11		
9	8	17	11			17		
10	15	24	35			33		
11	115	57	44			35		
13	17	124	85			59		
OF					10	11	5	6

	159	166	190	181	182	193	194	185
EPI		5	5					
4		7						
6		11						
8		16						
9		39						
10		45						
11		43						
13		46						
OF	6							

	196	187	189	199	193	194	195	196
EPI		6				6		
4						9		
6						12		
8						37		
9						43		
10						47		
11						46		
13						48		
OF								

	201	202	203	204	207	208	210	215
EPI	6				7			4
4								
6								
8								
9								
10								
11								
13								
OF								

	217	222	224	225	229	231	232	235
EPI		6			5			6
4		7						
6		13						
8		50						
9		44						
10		47						
11		46						
13		41						
OF								

	238	243	244	245	250	252	257	259
EPI		5			6		7	
4					6			
6					6			
8					23			
9					41			
10					48			
11					48			
13								
OF								

	264	266	271	273	278	280	285	287
EPI	6		8		7		7	
4					8			
6					8			
8					10			
9					11			
10					49			
11					46			
13					52			
OF								

	292	298	348
EPI	10	10	21
4		13	15
6		8	14
8		11	16
9		14	17
10		13	18
11		12	72
13		17	
OF			

LAKE 302W DIC (uM/L) 1982

DEPTH(m) DAY #

	012	040	068	124	131	138	145	152
EPI		137	139	126		61		77
4	151	187	307			93		
6	166	198	207			190		
8	186	270	271			276		
9	258	336	307			332		
10	368	390	352			409		
11	376	420	381			434		
13	699	788	600			518		
OF					96	88	159	58

	159	166	180	181	182	183	184	185
EPI		53	48	53				
4		79						
6		164						
8		317						
9		397						
10		434						
11		462						
13		518						
OF	59							

	186	187	188	189	193	194	195	196
EPI		39	26	32		29		
4						67		
6						225		
8						389		
9						481		
10						514		
11						530		
13						580		
OF								

	201	202	203	204	207	208	210	215
EPI	27		25		25		23	25
4								
6								
8								
9								
10								
11								
13								
OF								

	217	222	224	225	229	231	232	236
EPI	22	28	26		29	21		30
4		36						
6		173						
8		395						
9		450						
10		596						
11		612						
13		671						
OF								

	238	243	244	245	250	252	257	259
EPI	43	36	32	33	34	41	50	49
4					34			
6					67			
8					363			
9					478			
10					572			
11					646			
13					721			
OF								

	264	266	271	273	278	280	285	287
EPI	54	42	59	57	59	73	77	85
4					60			
6					64			
8					86			
9					233			
10					779			
11					849			
13					918			
OF								

	292	298	348
EPI	93	93	110
4		94	107
6		92	108
8		90	148
9		93	
10		94	239
11		100	374
13		102	599
OF			

LAKE 302N DOC (uM/L) 1992

DEPTH(m) DAY #

	012	040	068	124	131	138	145	152
EPI	720	600	820	1140		1070		990
4	740	540	1210			560		
6	1050	540	1030			720		
8	1060	790	780			790		
9	1110	680	760			590		
10	810	800	560			540		
11	640	410	670			960		
13	1000	890	1070			800		
OF					600	740	720	890

	159	166	180	181	182	183	194	195
EPI		770	930					
4		620						
6		980						
8		840						
9		930						
10		1130						
11		740						
13		1030						
OF	780							

	186	187	188	189	193	194	195	196
EPI		1990				930		
4						760		
6						690		
8						680		
9						550		
10						670		
11						1060		
13						660		
OF								

	201	202	203	204	207	208	210	215
EPI	650				690			730
4								
6								
8								
9								
10								
11								
13								
OF								

	217	222	224	225	229	231	232	236
EPI		760			560			520
4		760						
6		570						
8		850						
9		710						
10		650						
11		660						
13		910						
OF								

	239	243	244	245	250	252	257	259
EPI		1130			520		590	
4					520			
6					520			
8					460			
9					570			
10					540			
11					510			
13					640			
OF								

	264	266	271	273	278	280	285	287
EPI	700		500		510		500	
4					510			
6					660			
8					500			
9					510			
10					640			
11					800			
13					760			
OF								

	292	298	349
EPI	610	1570	1200
4		1350	950
6		1750	690
8		570	980
9		540	590
10		540	620
11		510	910
13		590	720
OF			

LAKE 302N Susp C (ug/L) 1982

DEPTH(m) DAY #

	012	040	063	124	131	139	145	152
EPI	770	600	670	1030		830		490
4	640	520	270			860		
6	660	460	300			760		
8	640	560	400			630		
9	740	1240	460			810		
10	930	1020	870			1100		
11	1120	2220	1210			1160		
13	3280	3230	2210			1440		
OF					950	800	490	580

	159	166	190	181	182	193	194	185
EPI		600	900					
4		650						
6		930						
8		960						
9		1250						
10		1350						
11		1230						
13		1260						
OF	510							

	186	187	188	189	193	194	195	196
EPI		1150				990		
4						1090		
6						740		
8						1280		
9						1440		
10						1350		
11						> 1060		
13						1380		
OF								

	201	202	203	204	207	208	210	215
EPI	1650				1060			990
4								
6								
8								
9								
10								
11								
13								
OF								

	217	222	224	225	229	231	232	235
EPI		1040			690			600
4		990						
6		1740						
8		1720						
9		1980						
10		1850						
11		1670						
13		1700						
OF								

	239	243	244	245	250	252	257	259
EPI		600			740		650	
4					750			
6					810			
8					2100			
9					2250			
10					2220			
11					2110			
13					2150			
OF								

	264	266	271	273	278	280	285	287
EPI	810		900		960		910	
4					920			
6					990			
8					870			
9					1040			
10					2040			
11					1900			
13					2090			
OF								

	292	298	348
EPI	790	830	970
4		830	530
6		830	620
8		790	560
9		820	570
10		850	660
11		840	1590
13		1190	2770
OF			

LAKE 302N Cl (mg/L) 1982

DEPTH(m) DAY #

	012	040	069	124	131	139	145	152
EPI	1.7	1.7	1.9	1.4		1.6		1.6
4	1.6	1.6	1.8			1.6		
6	1.7	1.6	1.9			1.6		
8	1.6	1.7	1.9			1.7		
9	1.6	1.7	1.9			1.7		
10	1.6	1.7	1.9			1.7		
11	1.6	1.7	1.9			1.8		
13	1.6	1.5	1.8			1.7		
OF					1.5	1.6	1.6	1.7

	159	166	180	181	182	193	194	195
EPI		2.9	1.5	1.4	1.5	1.6		
4		1.7						
6		1.8						
8		1.7						
9		1.8						
10		1.7						
11		1.8						
13		1.7						
OF	1.7							

	186	187	188	189	193	194	195	196
EPI		1.4				2.7		
4						1.6		
6						1.8		
8						1.8		
9						1.7		
10						1.8		
11						1.8		
13						1.8		
OF								

	201	202	203	204	207	208	210	215
EPI	1.7		1.4		1.9	3.2	1.4	1.6
4								
6								
8								
9								
10								
11								
13								
OF								

	217	222	224	225	229	231	232	235
EPI	1.5	1.4	1.4	1.6	1.4	1.4	1.4	1.4
4		1.4						
6		1.6						
8		2.2						
9		1.7						
10		1.7						
11		1.7						
13		1.6						
OF								

	238	243	244	245	250	252	257	259
EPI	1.3	1.6	1.5	1.5	1.5	1.4	1.6	1.6
4					1.6			
6					1.6			
8					2.0			
9					4.9			
10					1.8			
11					1.7			
13					1.7			
OF								

	264	266	271	273	278	280	285	287
EPI	1.5	1.6	1.5	1.5	1.4	1.5	1.5	1.5
4					1.5			
6					1.5			
8					1.5			
9					1.6			
10					1.6			
11					1.6			
13					1.6			
OF								

	292	298	348
EPI	1.4	1.4	1.5
4		1.3	1.4
6		1.3	1.4
8		1.4	1.4
9		5.0	1.4
10		1.4	1.4
11		1.4	1.4
13		1.5	1.4
OF			

LAKE 302N SO4 (mg/L) 1982

DEPTH(m) DAY #

	012	040	069	124	131	138	145	152
EPI	3.2	3.7	3.1	3.4		3.1		3.3
4	3.2	3.5	2.8			3.1		
6	3.2	3.4	2.9			3.1		
8	3.1	3.2	2.6			3.1		
9	3.0	3.1	2.6			3.0		
10	2.9	3.0	2.8			2.8		
11	2.3	3.1	2.8			3.0		
13	2.3	1.4	1.1			2.8		
OF					3.2	3.2	3.2	3.2

	159	166	180	181	182	193	194	195
EPI		3.2	3.2	3.0	3.3	4.3	3.1	3.0
4		3.1						
6		3.0						
8		3.0						
9		3.0						
10		2.9						
11		2.9						
13		2.8						
OF	3.3							

	186	187	188	189	193	194	195	196
EPI		3.3				3.4		
4						3.4		
6						2.9		
8						2.9		
9						2.8		
10						2.7		
11						2.5		
13						2.2		
OF								

	201	202	203	204	207	208	210	215
EPI	3.6		3.5		3.5	3.6	3.7	3.4
4								
6								
8								
9								
10								
11								
13								
OF								

	217	222	224	225	229	231	232	236
EPI	3.6	3.7	3.7	3.6	3.6	3.7	3.7	3.5
4		3.6						
6		3.3						
8		3.5						
9		3.1						
10		2.8						
11		2.4						
13		2.0						
OF								

	239	243	244	245	250	252	257	259
EPI	3.5	3.4	3.3	3.3	3.4	3.5	3.5	3.4
4					3.4			
6					3.3			
8					2.9			
9					2.7			
10					2.8			
11					2.1			
13					1.3			
OF								

	264	266	271	273	278	280	285	287
EPI	3.5	3.0	3.7	3.4	3.3	3.2	3.3	3.1
4					3.3			
6					3.3			
8					3.2			
9					3.2			
10					1.4			
11					1.3			
13					1.5			
OF								

	292	298	309
EPI	3.5	3.5	3.9
4		3.4	3.6
6		3.4	3.6
8		3.5	3.5
9		3.4	3.5
10		3.4	3.4
11		3.4	3.2
13		3.3	2.7
OF			

LAKE 302N H25-S (mg/L.) 1982

DEPTH(m) DAY #

	012	040	068	124	131	135	145	152
EPI								
4								
6		.01	.01					
8	< .01	< .01	.01					
9	< .01	< .01	.01			< .01		
10	< .01	< .01	.01			< .01		
11	< .01	< .01	.01			< .01		
13	.32	.20	.06			< .01		
OF								

	159	166	180	181	182	183	184	185
EPI								
4		.01						
6		< .01						
8		< .01						
9		< .01						
10		< .01						
11		.03						
13		.08						
OF								

	186	187	188	189	193	194	195	196
EPI								
4						< .01		
6						< .01		
8						< .01		
9						< .01		
10						.02		
11						.06		
13						.22		
OF								

	201	202	203	204	207	208	210	215
EPI								
4								
6								
8								
9								
10								
11								
13								
OF								

	217	222	224	225	229	231	232	235
EPI								
4		< .01						
6		< .01						
8		< .01						
9		< .01						
10		.09						
11		.31						
13		.58						
OF								

	238	243	244	245	250	252	257	259
EPI								
4								
6					< .01			
8					< .01			
9					< .01			
10					< .01			
11					.18			
13					.55			
OF								

	264	266	271	273	278	280	285	287
EPI								
4								
6					< .01			
8					< .01			
9					< .01			
10					.45			
11					.48			
13					.49			
OF								

	292	298	349
EPI			
4			
6	< .01		
8	< .01	.01	
9	< .01	.01	
10	< .01	< .01	
11	< .01	.01	
13	< .01	.03	
OF			

LAKE 302N Mo (mg/L) 1982

DEPTH(m) DAY #

	012	040	069	124	131	138	145	152
EPI	.81	.87	.93	.89		.93		
4	.81	.82	.87			.82		
6	.79	.82	.86			.83		
8	.81	.85	.91			.89		
9	.81	.83	.95			.86		
10	.82	.87	.89			.99		
11	.81	.86	.86			.97		
13	.84	.90	.87			.89		
OF					.90	.93	.85	.86

	159	166	180	181	182	183	184	195
EPI		.79	.90					
4		.75						
6		.79						
8		.77						
9		.79						
10		.83						
11		.88						
13		.83						
OF	.80							

	186	187	188	189	193	194	195	196
EPI		.98				.75		
4						.76		
6						.76		
8						.80		
9						.77		
10						.76		
11						.76		
13						.78		
OF								

	201	202	203	204	207	208	210	215
EPI	.81				.81			.95
4								
6								
8								
9								
10								
11								
13								
OF								

	217	222	224	225	229	231	232	236
EPI		.84			.86			.79
4		.84						
6		.86						
8		.86						
9		.89						
10		.87						
11		.87						
13		.93						
OF								

	238	243	244	245	250	252	257	259
EPI		.87			.77		.90	
4					.90			
6					.81			
8					.81			
9					.79			
10					.87			
11					.91			
13					.88			
OF								

	264	266	271	273	278	280	285	287
EPI	.79		.32		.80		.82	
4					.80			
6					.78			
8					.80			
9					.85			
10					.83			
11					.86			
13					.88			
OF								

	292	298	349
EPI	.88	.83	1.00
4		.82	.75
6		.82	.73
8		.89	.83
9		.95	.85
10		.85	.80
11		.96	.90
13		.85	.88
OF			

LAKE 302N K (mg/L) 1982

DEPTH(m) DAY #

	012	040	068	124	131	138	145	152
EPI	.51	.48	.50	.54		.50		
4	.51	.42	.48			.50		
6	.51	.42	.46			.54		
8	.51	.48	.49			.54		
9	.51	.48	.46			.54		
10	.53	.48	.48			.58		
11	.53	.48	.45			.60		
13	.55	.52	.55			.56		
OF					.50	.50	.40	.40

	159	166	180	181	182	193	194	195
EPI		.39	.38					
4		.39						
6		.40						
8		.43						
9		.43						
10		.45						
11		.43						
13		.45						
OF	.40							

	186	187	188	189	193	194	195	196
EPI		.42				.42		
4						.44		
6						.44		
8						.48		
9						.52		
10						.46		
11						.50		
13						.52		
OF								

	201	202	203	204	207	208	210	215
EPI	.46				.40			.42
4								
6								
8								
9								
10								
11								
13								
OF								

	217	222	224	225	229	231	232	235
EPI		.39			.43			.41
4		.38						
6		.42						
8		.44						
9		.46						
10		.46						
11		.46						
13		.43						
OF								

	238	243	244	245	250	252	257	259
EPI		.45			.45		.49	
4					.51			
6					.47			
8					.53			
9					.57			
10					.59			
11					.57			
13					.59			
OF								

	254	266	271	273	278	280	285	287
EPI	.45		.45		.42		.40	
4					.44			
6					.42			
8					.42			
9					.46			
10					.56			
11					.56			
13					.61			
OF								

	292	298	348
EPI	.39	.40	.43
4		.38	.39
6		.38	.37
8		.42	.41
9		.40	.37
10		.40	.43
11		.39	.41
13		.42	.39
OF			

LAKE 302W Ca (mg/L) 1992

DEPTH(m) DAY #

	012	040	068	124	131	138	145	152
EPI	1.86	1.93	1.89	1.77		1.73		
4	1.73	1.89	1.85			1.73		
6	1.78	1.85	1.77			1.77		
8	1.78	1.73	1.45			1.89		
9	1.78	1.37	1.41			2.13		
10	1.69	1.41	1.37			2.13		
11	1.90	1.21	1.85			2.36		
13	3.30	6.12	4.67			2.60		
OF					1.81	1.81	1.88	1.70

	159	166	180	181	192	193	184	195
EPI		1.83	1.88					
4		1.79						
6		1.97						
8		2.15						
9		1.83						
10		2.15						
11		2.25						
13		2.66						
OF	1.88							

	195	187	188	189	193	194	195	196
EPI		1.65				1.73		
4						1.77		
6						2.05		
8						1.73		
9						2.37		
10						2.61		
11						2.61		
13						2.73		
OF								

	201	202	203	204	207	208	210	215
EPI	1.89				1.81			1.72
4								
6								
8								
9								
10								
11								
13								
OF								

	217	222	224	225	229	231	232	236
EPI		1.72			1.70			1.65
4		1.81						
6		1.99						
8		1.58						
9		1.81						
10		2.67						
11		2.85						
13		2.76						
OF								

	239	243	244	245	250	252	257	259
EPI		1.72			1.63		1.67	
4					1.63			
6					1.72			
8					.79			
9					2.29			
10					3.62			
11					3.44			
13					3.30			
OF								

	264	266	271	273	278	280	285	287
EPI	1.67		1.53		1.52		1.85	
4					1.71			
6					1.71			
8					1.62			
9					1.67			
10					4.21			
11					3.75			
13					3.56			
OF								

	292	298	308
EPI	1.81	1.90	
4		1.94	2.03
6		1.90	2.02
8		1.85	2.30
9		1.99	1.97
10		1.99	1.97
11		1.99	1.64
13		1.99	3.12
OF			

LAKE 302N Mg (mg/L) 1982

DEPTH(m) DAY #

	012	040	068	124	131	138	145	152
EPI	.72	.76	.75	.61		.63		
4	.71	.75	.74			.66		
6	.71	.72	.72			.66		
8	.71	.72	.72			.69		
9	.72	.72	.75			.76		
10	.71	.76	.74			.73		
11	.74	.72	.72			.83		
13	.79	.85	.83			.72		
OF					.64	.66	.64	.60

	159	166	180	181	182	183	194	185
EPI		.61	.68					
4		.61						
6		.64						
8		.69						
9		.67						
10		.70						
11		.67						
13		.71						
OF	.65							

	186	187	188	189	193	194	195	196
EPI		.59				.59		
4						.61		
6						.64		
8						.67		
9						.69		
10						.68		
11						.68		
13						.66		
OF								

	201	202	203	204	207	208	210	215
EPI	.58				.67			.63
4								
6								
8								
9								
10								
11								
13								
OF								

	217	222	224	225	229	231	232	236
EPI		.64			.59			.62
4		.63						
6		.65						
8		.69						
9		.70						
10		.70						
11		.70						
13		.70						
OF								

	238	243	244	245	250	252	257	259
EPI		.59			.58		.57	
4					.57			
6					.60			
8					.65			
9					.65			
10					.68			
11					.68			
13					.60			
OF								

	264	266	271	273	278	280	285	287
EPI	.59		.60		.64		.65	
4					.65			
6					.64			
8					.64			
9					.69			
10					.75			
11					.74			
13					.72			
OF								

	292	298	348
EPI	.66	.65	
4		.68	.69
6		.66	.68
8		.67	.71
9		.67	.65
10		.69	.67
11		.68	.69
13		.66	.77
OF			

LAKE 302N Mn (mg/L) 1992

DEPTH(m) DAY #

	012	040	068	124	131	138	145	152
EPI	< .02	.01	.01	.06		.03		
4	< .02	.01	.02			.01		
6	< .02	.01	.03			.04		
8	< .02	.07	.10			.09		
9	< .02	.11	.13			.17		
10	.05	.14	.17			.23		
11	.23	.22	.25			.32		
13	.67	1.72	1.60			.43		
OF					.04	.01	.07	.04

	159	166	180	181	182	183	184	185
EPI		.01	< .01					
4		.01						
6		.01						
8		.03						
9		.01						
10		< .01						
11		< .01						
13		< .01						
OF	.04							

	186	187	188	189	193	194	195	196
EPI		.02				< .02		
4						< .02		
6						.05		
8						.25		
9						.37		
10						.39		
11						.40		
13						.42		
OF								

	201	202	203	204	207	208	210	215
EPI	< .02				.01			< .01
4								
6								
8								
9								
10								
11								
13								
OF								

	217	222	224	225	229	231	232	235
EPI		< .01			< .01			< .01
4		< .01						
6		.03						
8		.26						
9		.42						
10		.43						
11		.43						
13		.45						
OF								

	239	243	244	245	250	252	257	259
EPI		.03			< .01		< .01	
4					< .01			
6					.01			
8					.40			
9					.55			
10					.53			
11					.52			
13					.52			
OF								

	264	266	271	273	278	280	285	287
EPI	.01		.01		.03		.03	
4					.03			
6					.03			
8					.04			
9					.10			
10					.56			
11					.58			
13					.61			
OF								

	292	298	349
EPI	.04	.03	
4		.03	.04
6		.03	.04
8		.01	.04
9		.01	.06
10		.01	.10
11		.03	.43
13		.03	1.18
OF			

LAKE 302W Fe (mg/L) 1982

DEPTH(m) DAY #

	012	040	068	124	131	138	145	152
EPI	.08	< .02	.02	.11		.07		
4	.08	< .02	< .02			.07		
6	.08	< .02	.02			.07		
8	.08	.02	.05			.15		
9	.09	.05	.07			.22		
10	.08	.09	.18			.22		
11	.96	.14	.55			.37		
13	3.31	4.62	7.28			2.01		
OF					.11	.07	< .03	< .03

	159	166	190	181	182	193	194	185
EPI		< .03	< .03					
4		< .03						
6		.03						
8		.06						
9		.10						
10		.60						
11		1.37						
13		2.10						
OF	< .03							

	186	187	188	189	193	194	195	196
EPI		.04				.04		
4						.04		
6						.09		
8						.12		
9						.92		
10						1.73		
11						1.92		
13						2.39		
OF								

	201	202	203	204	207	208	210	215
EPI	.04				< .03			.06
4								
6								
8								
9								
10								
11								
13								
OF								

	217	222	224	225	229	231	232	235
EPI		.06			.03			< .03
4		.06						
6		.09						
8		.21						
9		.62						
10		2.25						
11		2.67						
13		3.00						
OF								

	238	243	244	245	250	252	257	259
EPI		.09			.04		.09	
4					.04			
6					.04			
8					.19			
9					1.36			
10					2.42			
11					3.03			
13					3.64			
OF								

	254	266	271	273	278	280	285	297
EPI	.09		.04		< .03		.03	
4					< .03			
6					< .03			
8					< .03			
9					.03			
10					3.06			
11					3.99			
13					4.80			
OF								

	292	298	348
EPI	.06	.03	.05
4		.03	.05
6		< .03	.05
8		.03	.05
9		.03	.10
10		.03	.10
11		.03	.10
13		.03	4.50
OF			

LAKE 302W Ferrous-Fe (mg/L) 1982

DEPTH(m)	DAY #							
	012	040	069	124	131	138	145	152
EPI	< .01	.11	.01			.02		
4	< .01	< .01	< .01			.01		
6		< .01	< .01			.01		
8	.02	< .01	< .01			.02		
9	< .01	< .01	.01			.02		
10	.02	< .01	.10			.03		
11	.02	.07	.24			.20		
13	4.36	4.13	7.64			1.87		
OF								

	159	166	180	181	182	193	194	195
EPI		.07	< .01					
4		.14						
6		.13						
8		.11						
9		.08						
10		.44						
11		2.59						
13		2.97						
OF								

	185	187	188	189	193	194	195	196
EPI						.03		
4						.03		
6						.01		
8						.04		
9						1.37		
10						2.33		
11						2.53		
13						3.61		
OF								

	201	202	203	204	207	208	210	215
EPI								
4								
6								
8								
9								
10								
11								
13								
OF								

	217	222	224	225	229	231	232	235
EPI		< .01						
4		< .01						
6		< .01						
8		< .01						
9		1.17						
10		2.50						
11		3.03						
13		3.33						
OF								

	238	243	244	245	250	252	257	259
EPI					< .01			
4					< .01			
6					.01			
8					.03			
9					1.15			
10					1.99			
11					3.37			
13					4.02			
OF								

	264	266	271	273	278	280	295	297
EPI					< .01			
4					< .01			
6					< .01			
8					< .01			
9					< .01			
10					3.88			
11					4.79			
13					5.35			
OF								

	292	298	348
EPI		< .01	.01
4		< .01	.01
6		< .01	.01
8		< .01	.01
9		< .01	.01
10		< .01	.01
11		< .01	.01
13		< .01	4.26
OF			

LAKE 302W Susp Fe (ug/L) 1982

DEPTH(m) DAY #

	012	040	068	124	131	138	145	152
EPI	17	19	15			30		
4	32	29	27			39		
6	42	37	43			67		
8	64	105	135			166		
9	127	218	186			379		
10		339	275			618		
11	344	498	245			919		
13	414	165	177			524		
OF						39		

	159	166	180	181	182	183	184	185
EPI		13	13					
4		17						
6		29						
8		124						
9		279						
10		493						
11		322						
13		144						
OF								

	186	187	188	189	193	194	195	196
EPI						20		
4						39		
6						51		
8						221		
9						508		
10						220		
11						164		
13						92		
OF								

	201	202	203	204	207	208	210	215
EPI								
4								
6								
8								
9								
10								
11								
13								
OF								

	217	222	224	225	229	231	232	236
EPI		19						
4		26						
6		66						
8		221						
9		766						
10		229						
11		109						
13		78						
OF								

	238	243	244	245	250	252	257	259
EPI					3			
4					13			
6					29			
8					417			
9					702			
10					419			
11					104			
13								
OF								

	264	266	271	273	278	280	285	287
EPI					93			
4					92			
6					97			
8					124			
9					195			
10					182			
11					97			
13					119			
OF								

	292	298	348
EPI		149	98
4		149	76
6		145	68
8		147	88
9		153	133
10		213	124
11		157	356
13		274	41
OF			

LAKE 302N SRSi (mg/L.) 1982

DEPTH(m) DAY #

	012	040	068	124	131	138	145	152
EPI		.105	.117	.266		.224		.224
4	.107	.158	.197			.207		
6	.145	.187	.259			.265		
8	.153	.368	.439			.423		
9	.222	.499	.505			.514		
10	.353	.572	.577			.607		
11	.610	.606	.623			.676		
13	1.100	.927	1.340			.794		
OF					.242	.277	.262	.237

	159	166	180	181	182	183	184	195
EPI		.205	.181					
4		.159						
6		.110						
8		.366						
9		.505						
10		.610						
11		.686						
13		.754						
OF	.206							

	186	187	189	189	193	194	195	196
EPI		.245				.255		
4						.230		
6						.065		
8						.333		
9						.578		
10						.689		
11						.717		
13						.793		
OF								

	201	202	203	204	207	208	210	215
EPI	.234				.240			.250
4								
6								
8								
9								
10								
11								
13								
OF								

	217	222	224	225	229	231	232	236
EPI		.241			.215			.175
4		.218						
6		.011						
8		.180						
9		.452						
10		.672						
11		.746						
13		.821						
OF								

	238	243	244	245	250	252	257	259
EPI		.142			.105		.069	
4					.106			
6					.091			
8					.228			
9					.529			
10					.661			
11					.743			
13					.855			
OF								

	264	266	271	273	278	280	285	287
EPI	.035		.022		.043		.113	
4					.042			
6					.047			
8					.064			
9					.110			
10					.756			
11					.878			
13					.978			
OF								

	292	298	348
EPI	.144	.144	.096
4		.146	.094
6		.144	.096
8		.147	.157
9		.149	.294
10		.151	.370
11		.153	.539
13		.174	.875
OF			

LAKE 302N Chl-a (ug/L) 1982

DEPTH(m) DAY #

	012	040	068	124	131	138	145	152
EPI	3.3	1.8	2.3	6.2		4.5		2.4
4	1.6	1.2	.8			8.4		
6	1.5	1.2	.8			7.2		
8	1.9	1.8	9.9			5.5		
9	2.0	2.4	2.0			5.3		
10	2.4	3.5	3.1			6.2		
11	3.3	6.1	3.4			4.9		
13	9.0	10.3	9.7			7.2		
OF								

	159	166	180	181	182	183	184	185
EPI		2.6	2.7					
4		4.8						
6		8.8						
8		17.6						
9		16.8						
10		25.0						
11		37.5						
13		11.8						
OF								

	186	187	188	189	193	194	195	196
EPI		7.9				7.5		
4						6.5		
6						4.8		
8						35.5		
9						27.3		
10						27.8		
11						30.6		
13						21.7		
OF								

	201	202	203	204	207	208	210	215
EPI	6.6				7.1			9.4
4								
6								
8								
9								
10								
11								
13								
OF								

	217	222	224	225	229	231	232	235
EPI		7.4			7.0			7.0
4		8.1						
6		23.8						
8		37.2						
9		53.3						
10		43.7						
11		39.0						
13		38.0						
OF								

	238	243	244	245	250	252	257	259
EPI		6.3			8.9		8.0	
4					6.3			
6					6.8			
8					38.7			
9					50.1			
10					48.4			
11					51.7			
13					50.0			
OF								

	264	266	271	273	278	280	285	287
EPI	7.3		14.6		18.4		15.9	
4					13.7			
6					14.3			
8					14.3			
9					14.1			
10					64.7			
11					62.2			
13					66.4			
OF								

	292	298	348
EPI	11.3	11.6	10.7
4		11.3	9.1
6		11.5	8.4
8		7.2	7.1
9		9.8	5.3
10		11.6	5.3
11		9.8	9.0
13		13.8	19.1
OF			

LAKE 302N Colour (abs425nm) 1982

DEPTH(m) DAY #

	012	040	068	124	131	138	145	152
EPI	.061	.048	.053					
4	.071	.052	.051					
6	.067	.062	.060					
8	.077	.075	.085					
9	.091	.107	.101			.094		
10	.119	.140	.154			.094		
11	.166	.221	.221			.126		
13	.692	.523	.485			.313		
OF								

	159	166	180	181	182	193	194	195
EPI		.057	.048					
4		.060						
6		.061						
8		.060						
9		.068						
10		.112						
11		.142						
13		.147						
OF								

	186	187	188	189	193	194	195	196
EPI						.065		
4						.090		
6						.062		
8						.057		
9						.161		
10						.214		
11						.197		
13						.220		
OF								

	201	202	203	204	207	208	210	215
EPI								
4								
6								
8								
9								
10								
11								
13								
OF								

	217	222	224	225	229	231	232	235
EPI		.060						
4		.061						
6		.063						
8		.072						
9		.141						
10		.162						
11		.189						
13		.242						
OF								

	239	243	244	245	250	252	257	259
EPI					.057			
4					.059			
6					.061			
8					.067			
9					.133			
10					.156			
11					.188			
13					.270			
OF								

	264	266	271	273	278	280	285	287
EPI					.056			
4					.056			
6					.063			
8					.061			
9					.060			
10					.287			
11					.339			
13					.381			
OF								

	292	298	349
EPI		.052	.051
4		.053	.049
6		.065	.052
8		.060	.050
9		.059	.058
10		.058	.057
11		.054	.051
13		.060	.151
OF			

Appendix 14

Lake 302 north basin 1983 water chemistry data

LAKE 302N Temp (C) 1993

DEPTH(m)	DAY #							
	011	046	074	129	137	144	151	155
EPI				7.00				
4				6.40				
6				5.70				
8				4.90				
9				4.70				
10				4.50				
11				4.50				
13				4.70				
OF								

	165	172	179	186	193	200	207	214
EPI	19.00				20.60			
4	14.00				17.60			
6	8.60				9.60			
8	6.50				7.00			
9	6.10				6.40			
10	5.80				6.10			
11	5.70				6.00			
13	5.60				5.80			
OF								

	221	228	235	242	249	256	263	270
EPI	23.90				20.40			
4	22.40				20.40			
6	11.50				12.90			
8	7.70				7.40			
9	6.90				6.60			
10	6.30				6.20			
11	6.10				6.00			
13	6.00				5.80			
OF								

	277	284	291	298	347
EPI	11.10		7.30		
4	11.10		7.30		
6	11.10		7.30		
8	10.10		7.30		
9	8.20		7.30		
10	6.90		7.30		
11	6.70		7.30		
13	6.30		7.30		
OF					

LAKE 302N Cond (uS/cm) 1983

DEPTH(m)	DAY #							
	011	046	074	129	137	144	151	153
EPI	50	27	27	25	24	23	24	24
4		27	27	27				
6	29	27	27	31				
8	27	27	27	26				
9	26	27	27	27				
10	26	31	25	27				
11	28	27	46	30				
13	43	74	82	73				
OF								

	165	172	179	186	193	200	207	214
EPI	23	25	24	24	24	24	24	24
4	25				24			
5	24				27			
8	27				28			
9	30				27			
10	29				36			
11	29				39			
13	30				42			
OF								

	221	228	235	242	249	256	263	270
EPI	24	24	24	24	24	27	29	25
4	24				24			
6	24				24			
8	27				24			
9	26				28			
10	44				58			
11	49				55			
13	50				58			
OF								

	277	284	291	298	347
EPI	24	31	27	27	27
4	24		25		26
6	22		27		26
8	23		26		27
9	21		25		27
10	55		27		28
11	62		27		30
13	74		27		34
OF					

LAKE 302N pH 1983

DEPTH(m) DAY #

	011	046	074	129	137	144	151	158
EPI	6.27	5.87	5.54	5.81	6.03	6.54	6.74	6.61
4		5.70	5.42	5.90				
6	6.12	5.68	5.32	5.82				
8	6.08	5.67	5.25	5.83				
9	5.90	5.56	5.28	5.80				
10	5.82	5.84	5.29	5.80				
11	5.90	5.58	6.26	5.89				
13	6.43	6.43	6.43	6.41				
OF								

	165	172	179	186	193	200	207	214
EPI	6.46	6.53	6.81	6.62	6.47	6.35	6.62	6.66
4	6.59				6.83			
6	6.22				6.22			
8	5.83				5.84			
9	5.90				5.74			
10	5.81				6.02			
11	5.79				6.12			
13	5.80				6.20			
OF								

	221	228	235	242	249	256	263	270
EPI	6.65	6.69	6.76	6.59	6.57	6.66	6.14	6.21
4	8.46				6.64			
6	6.38				6.73			
8	5.64				5.53			
9	5.55				5.62			
10	6.08				6.25			
11	6.17				6.25			
13	6.16				6.26			
OF								

	277	284	291	298	347
EPI	6.19	6.28	6.12	6.26	6.14
4	6.19		6.11		6.06
6	6.16		6.11		6.04
8	6.07		6.10		6.00
9	5.29		6.11		5.89
10	6.29		6.12		5.82
11	6.32		6.11		5.77
13	6.29		6.15		5.84
OF					

LAKE 302N Alkal (uEq/L) 1983

DEPTH(m) DAY #

	011	046	074	129	137	144	151	158
EPI	53	48	38	40	44	44	43	43
4	54	49	32	41				
6	60	46	32	43				
8	58		35	43				
9	58		34	49				
10	106	26	23	50				
11	179	242	367	65				
13	600	713	719	540				
OF								

	165	172	179	186	193	200	207	214
EPI	35	34	34	34	26	30	35	37
4	51				39			
6	51				54			
8	76				94			
9	87				95			
10	99				149			
11	107				178			
13	115				214			
OF								

	221	228	235	242	249	256	263	270
EPI	34	35	31	27	36	35	36	36
4	40				32			
6	56				65			
8	78				65			
9	87				104			
10	209				387			
11	299				439			
13	332				441			
OF								

	277	284	291	298	347
EPI	34	39	50	48	54
4	33		49		51
6	33		51		53
8	36		49		57
9	22		50		61
10	456		53		80
11	549		52		100
13	547		50		160
OF					

LAKE 302N O2 (mg/L) 1983

DEPTH(m)	DAY #							
	011	046	074	129	137	144	151	158
EPI	10.33	8.61	6.27	8.58				
4	9.29	6.96	5.87	8.09				
6	8.92	6.94	3.71	6.98				
8	8.77	7.03	2.21	7.23				
9	4.13	4.17	1.91	5.42				
10	.91	4.09	.82	5.23				
11	.15	2.81	.16	4.02				
13	< .01	< .01	< .01	< .01				
OF								

	165	172	179	186	193	200	207	214
EPI	8.97				8.09			
4	10.52				9.62			
6	11.64				9.51			
8	4.12				.89			
9	1.37				.16			
10	.33				.10			
11	.30				.04			
13	.20				< .01			
OF								

	221	228	235	242	249	256	263	270
EPI	8.20				9.19			
4	10.86				9.36			
6	10.99				11.70			
8	.82				.72			
9	.10				.11			
10	< .01				< .01			
11	< .01				< .01			
13	< .01				< .01			
OF								

	277	284	291	298	347
EPI	9.30		9.43		10.80
4	8.97		9.63		10.57
6	9.33		9.45		10.34
8	8.30		9.46		9.78
9	.66		9.44		8.59
10	< .01		9.59		6.38
11	< .01		9.39		3.19
13	< .01		9.37		.34
OF					

LAKE 302N NH3-N (ug/L) 1983

DEPTH(m)	DAY #							
	011	046	074	129	137	144	151	158
EPI	151	147	35	29	36	49	43	29
4	155	109	40	28				
6	171	101	12	39				
8	173	95	19	38				
9	261	161	54	69				
10	479	215	102	78				
11	657	654	741	141				
13	1750	2100	2400	2150				
OF								

	165	172	179	186	193	200	207	214
EPI	20	24	22	24	9	25	9	20
4	20				17			
6	47				72			
8	176				312			
9	276				393			
10	333				635			
11	402				700			
13	505				850			
OF								

	221	228	235	242	249	256	253	270
EPI	24	18	54	31	11	6	35	40
4	51				29			
6	44				18			
8	287				230			
9	418				510			
10	744				1085			
11	1070				1265			
13	1260				1120			
OF								

	277	284	291	298	347
EPI	29	60	107	101	118
4	32		110		125
6	28		111		132
8	43		107		152
9	307		105		203
10	1180		126		289
11	1690		123		445
13	1990		121		789
OF					

LAKE 302N NO2-N (ug/L) 1983

DEPTH(m) DAY #

	011	046	074	129	137	144	151	158
EPI	< 1	8	3	3	2	2	< 1	2
4	< 1	3	2	2				
6	< 1	2	2	2				
8	< 1	2	14	2				
9	< 1	3	27	< 1				
10	< 1	10	43	< 1				
11	< 1	4	2	< 1				
13	< 1	< 1	2	5				
OF								

	165	172	179	186	193	200	207	214
EPI	3	< 1	< 1	3	3		4	< 1
4	2				2			
6	< 1				< 1			
8	< 1				< 1			
9	2				< 1			
10	14				< 1			
11	6				< 1			
13	< 1				< 1			
OF								

	221	228	235	242	249	256	263	270
EPI	< 1		3	< 1	3	3	2	2
4	< 1				3			
6	< 1				< 1			
8	< 1				< 1			
9	< 1				< 1			
10	< 1				< 1			
11	< 1				< 1			
13	< 1				< 1			
OF								

	277	284	291	298	347
EPI	3	2	5	4	3
4	< 1		5		3
6	< 1		5		5
8	< 1		4		5
9	45		4		8
10	< 1		4		11
11	< 1		4		10
13	< 1		4		4
OF					

LAKE 302N NO3-N (ug/L) 1983

DEPTH(m) DAY #

	011	046	074	129	137	144	151	153
EPI	292	309	422	350	288	231	239	235
4	306	366	503	351				
6	312	352	519	351				
8	316	244	511	351				
9	292	273	443	358				
10	157	248	347	360				
11	< 1	56	7	337				
13	< 1	2	4	51				
OF								

	165	172	179	186	193	200	207	214
EPI	244	420	270	258	402	372	272	261
4	249				242			
6	233				200			
8	233				153			
9	198				18			
10	100				42			
11	46				13			
13	2				20			
OF								

	221	228	235	242	249	256	263	270
EPI	258	260	267	321	352	354	346	396
4	225				368			
6	183				110			
8	80				50			
9	< 1				< 1			
10	1				3			
11	1				3			
13	2				106			
OF								

	277	284	291	298	347
EPI	391	415	415	438	448
4	404		428		447
6	401		436		445
8	380		429		427
9	162		425		415
10	1		398		365
11	1		431		282
13	< 1		410		7
OF					

LAKE 302N TDN (ug/L) 1983

DEPTH(m)	DAY #							
	011	046	074	129	137	144	151	159
EPI	712	713	684	559	509	467	503	582
4	734	713	729	501				
6	738	709	765	576				
8	716	704	792	564				
9	810	804	792	608				
10	1014	820	741	605				
11	1105	1112	1140	685				
13	2451	2540	3085	2400				
OF								

DEPTH(m)	DAY #							
	165	172	179	186	193	200	207	214
EPI	504	598	619	652	650	634	629	540
4	522				509			
6	543				489			
8	665				717			
9	717				680			
10	709				865			
11	722				947			
13	776				1094			
OF								

DEPTH(m)	DAY #							
	221	228	235	242	249	256	263	270
EPI	524	547	710	640	628	609	540	597
4	539				675			
6	476				421			
8	651				597			
9	717				852			
10	1098				1467			
11	1370				1665			
13	1590				1665			
OF								

DEPTH(m)	DAY #				
	277	284	291	298	347
EPI	671	728	902	818	753
4	668		823		785
6	654		804		805
8	683		807		807
9	759		849		853
10	1482		829		922
11	1920		853		1051
13	2225		831		1218
OF					

LAKE 302N Susp N (ug/L) 1983

DEPTH(m)	DAY #							
	011	046	074	129	137	144	151	159
EPI	118	49	35	103	111	84	76	37
4	40	47	30	70				
6	39	29	33	97				
8	35	68	33	81				
9	55	26	50	76				
10	76	221	103	69				
11	209	49	245	73				
13	413	65	330	84				
OF								

DEPTH(m)	DAY #							
	165	172	179	186	193	200	207	214
EPI	56	74	36	100	72	70	94	62
4	69				95			
6	115				105			
8	53				89			
9	271				66			
10	259				184			
11	222				220			
13	246				243			
OF								

DEPTH(m)	DAY #							
	221	228	235	242	249	256	263	270
EPI	86	89	78	74	104	77	89	79
4	142				167			
6	104				116			
8	124				268			
9	338				388			
10	316				472			
11	307				383			
13	321				414			
OF								

DEPTH(m)	DAY #				
	277	284	291	298	347
EPI	78	118	105	79	93
4	92		92		66
6	83		90		88
8	76		87		66
9	336		96		81
10	260		101		90
11	258		110		145
13	296		123		653
OF					

LAKE 302N TDP (ug/L) 1983

DEPTH(m) DAY #

	011	046	074	129	137	144	151	158
EPI	6	4	5	4	5	4	5	6
4	4	5	10	4				
6	5	4	6	4				
8	4	4	8	4				
9	5	5	7	4				
10	6	5	5	5				
11	8	9	20	5				
13	30	57	89	43				
OF								

	165	172	179	186	193	200	207	214
EPI	5	4	5	3	4	17	4	4
4	5				6			
6	6				7			
8	6				8			
9	7				9			
10	7				9			
11	8				9			
13	8				12			
OF								

	221	228	235	242	249	256	263	270
EPI	3	5	19	5	4	3	3	4
4	4				6			
6	4				4			
8	5				6			
9	6				6			
10	7				9			
11	8				10			
13	11				14			
OF								

	277	284	291	298	347
EPI	3	4	3	3	4
4	3		3		3
6	3		3		3
8	3		3		3
9	4		3		4
10	8		3		4
11	10		3		5
13	11		3		8
OF					

LAKE 302N Susp P (ug/L) 1983

DEPTH(m) DAY #

	011	046	074	129	137	144	151	158
EPI	34	11	5	16	8	9	11	5
4	27	11	4	12				
6	10	10	4	12				
8	10	8	6	13				
9	15	10	9	13				
10	40	15	29	11				
11	76	66	70	17				
13	124	110	91	105				
OF								

	165	172	179	186	193	200	207	214
EPI	8	9	5	8	5	8	11	5
4	9				7			
6	16				11			
8	23				17			
9	52				39			
10	46				37			
11	46				44			
13	49				45			
OF								

	221	228	235	242	249	256	263	270
EPI	9	13	4	3	4	4	4	4
4	15				5			
6	19				7			
8	19				17			
9	54				35			
10	58				49			
11	56				50			
13	64				70			
OF								

	277	284	291	298	347
EPI	6	5	7	6	10
4	6		7		8
6	7		7		8
8	6		6		7
9	47		7		10
10	34		8		14
11	41		8		22
13	47		11		116
OF					

LAKE 302W DIC (uM/L) 1983

DEPTH(m)	DAY #							
	011	046	074	129	137	144	151	158
EPI	138	161	182	134	73	46	44	45
4		194	223	153				
6	151	189	257	198				
8	136	189	290	182				
9	259	267	303	227				
10	364	332	342	223				
11	394	257	485	276				
13	414	952	1029	984				
UF								

	165	172	179	186	193	200	207	214
EPI	41	29	30	29	24	22	30	27
4	49				35			
6	87				108			
8	288				362			
9	373				400			
10	399				476			
11	432				513			
13	450				528			
OF								

	221	228	235	242	249	256	263	270
EPI	27	28	30	26	26	34	58	56
4	17				26			
6	81				64			
8	375				378			
9	456				519			
10	600				792			
11	679				771			
13	715				838			
OF								

	277	284	291	298	347
EPI	71	72	135	94	95
4	72		134		94
6	73		135		96
8	86		132		115
9	330		134		153
10	765		133		222
11	902		132		324
13	973		132		487
OF					

LAKE 302W DOC (uM/L) 1983

DEPTH(m)	DAY #							
	011	046	074	129	137	144	151	158
EPI	700	750	500	550	460	720	460	540
4	710	610	790	850				
6	610	660	710	520				
8	750	610	500	450				
9	800	570	500	450				
10	590	670	600	430				
11	590	690	700	510				
13	1050	950	1010	760				
OF								

	165	172	179	186	193	200	207	214
EPI	440	500	410	520	510	480	490	500
4	500				490			
6	500				470			
8	430				480			
9	500				470			
10	470				550			
11	460				530			
13	500				550			
OF								

	221	228	235	242	249	256	263	270
EPI	540	490	510	690	490	500	530	460
4	500				490			
6	490				440			
8	490				420			
9	370				410			
10	560				530			
11	570				520			
13	590				550			
OF								

	277	284	291	298	347
EPI	460	460	490	490	430
4	470		490		440
6	490		490		420
8	430		460		410
9	470		470		420
10	550		470		430
11	630		490		430
13	730		470		490
OF					

LAKE 302W Susp C (ug/L) 1983

DEPTH(m)	DAY #							
	011	046	074	129	137	144	151	158
EPI	1240	620	500	830	1050	790	650	390
4	360	350	440	630				
6	390	540	450	730				
8	310	1630	440	620				
9	560	420	620	640				
10	690	1410	890	590				
11	1530	450	1690	630				
13	2400	510	2370	750				
OF								

	165	172	179	186	193	200	207	214
EPI	650	740	300	780	690	560	1020	620
4	540				890			
6	790				840			
8	490				690			
9	1610				1230			
10	1530				1100			
11	1540				1220			
13	1560				1320			
OF								

	221	228	235	242	249	256	263	270
EPI	860	830	700	650	790	720	770	690
4	1180				1290			
6	1080				940			
8	1080				1790			
9	2170				2600			
10	2110				2980			
11	1940				2370			
13	2050				3010			
OF								

	277	284	291	298	347
EPI	720	830	940	700	770
4	760		840		630
6	780		740		880
8	690		740		620
9	2090		820		690
10	1660		820		810
11	1700		900		1120
13	1820		950		5220
OF					

LAKE 302W Cl (mg/L) 1983

DEPTH(m)	DAY #							
	011	046	074	129	137	144	151	158
EPI	1.3	1.5	1.3	1.1	1.9	1.4	1.4	1.4
4	1.3	1.4	1.3	1.2				
6	1.4	1.5	1.4	1.4				
8	1.3	1.5	1.4	.8				
9	1.3	1.4	1.4	1.3				
10	1.3	1.3	1.4	.7				
11	1.4	1.4	1.4	1.0				
13	1.3	1.4	1.4	1.1				
OF								

	165	172	179	186	193	200	207	214
EPI	1.3	1.4	1.6	1.6	1.3	2.2	1.2	1.5
4	1.3				1.8			
6	1.3				1.5			
8	1.4				1.4			
9	1.4				1.4			
10	1.3				3.6			
11	3.5				1.5			
13	1.4				1.5			
OF								

	221	228	235	242	249	256	263	270
EPI	1.3	2.1	1.3	1.5	1.3	1.3	1.4	1.5
4	1.3				1.3			
6	1.4				1.4			
8	1.5				1.4			
9	1.5				1.4			
10	1.5				1.5			
11	1.5				1.4			
13	1.5				1.4			
OF								

	277	284	291	298	347
EPI	1.4	1.3	1.3	1.3	1.4
4	1.5		1.4		1.4
6	1.4		1.4		1.4
8	1.4		1.4		1.4
9	1.3		1.4		1.4
10	1.3		1.4		1.4
11	1.2		1.4		1.4
13	2.1		1.4		1.4
OF					

LAKE 302N SO4 (mg/L) 1983

DEPTH(m)	DAY #							
	011	046	074	129	137	144	151	158
EPI	3.8	3.5	3.8	2.9	4.6	3.7	3.7	3.8
4	3.7	3.6	3.6	3.3				
6	3.8	3.6	3.7	3.2				
8	3.8	4.0	3.7	1.8				
9	3.5	4.0	3.9	3.0				
10	3.5	4.0	3.9	.7				
11	3.4	3.1	2.6	1.8				
13	1.7	1.7	1.5	1.6				
OF								

	165	172	179	186	193	200	207	214
EPI	4.0	3.4	3.9	3.8	3.9	2.6	4.3	3.9
4	3.7				3.9			
6	3.7				3.7			
8	3.5				3.6			
9	3.6				3.5			
10	3.5				3.2			
11	3.6				3.0			
13	3.6				2.7			
OF								

	221	228	235	242	249	256	263	270
EPI	4.0	4.1	4.2	4.2	4.0	4.0	3.9	3.9
4	3.8				4.0			
6	3.5				3.7			
8	3.4				3.6			
9	3.4				3.6			
10	3.1				2.9			
11	2.0				2.0			
13	1.5				2.4			
OF								

	277	284	291	299	347
EPI	3.9	3.8	3.9	3.9	3.4
4	3.9		3.7		3.2
6	3.9		3.7		3.3
8	3.8		3.7		3.3
9	3.7		3.7		3.1
10	2.9		3.7		3.2
11	1.8		3.7		3.1
13	2.0		3.8		2.8
OF					

LAKE 302N H2S-S (mg/L) 1983

DEPTH(m)	DAY #							
	011	046	074	129	137	144	151	158
EPI	< .01	< .01	< .01	< .01				
4	< .01	< .01	< .01	< .01				
6	< .01	< .01	< .01	< .01				
8	< .01	< .01	< .01	< .01				
9	< .01	< .01	< .01	< .01				
10	< .01	< .01	< .01	< .01				
11	< .01	< .01	.04	< .01				
13	.01	< .01	.01	< .01				
OF								

	165	172	179	186	193	200	207	214
EPI								
4								
6					< .01			
8	< .01				< .01			
9	< .01				< .01			
10	< .01				.01			
11	< .01				.01			
13	< .01				.03			
OF								

	221	228	235	242	249	256	263	270
EPI								
4								
6	< .01				< .01			
8	< .01				< .01			
9	< .01				< .01			
10	.03				.43			
11	.52				.72			
13	.91				.66			
OF								

	277	284	291	298	347
EPI			< .01		< .01
4			< .01		< .01
6	< .01		< .01		< .01
8	< .01		< .01		< .01
9	< .01		< .01		< .01
10	< .01		< .01		< .01
11	.36		< .01		< .01
13	.52		< .01		< .01
OF					

LAKE 302N Na (mg/L) 1983

DEPTH(m) DAY #

	011	046	074	129	137	144	151	158
EPI	.95	.85	.81	.78	.74	.79	.79	.81
4	.68	.90	.76	.81				
6	.70	.85	.95	.78				
8	.76	.91	.78	.86				
9	.71	1.05	.96	.83				
10	.76	.85	.96	.81				
11	1.23	1.13	.78	.79				
13	.81	.91	.78	.83				
OF								

	165	172	179	185	193	200	207	214
EPI	.94	.97	.91	.86	.85	.92	.89	.98
4	.84				.94			
6	.95				.84			
8	.82				.85			
9	.83				.91			
10	.83				.98			
11	.85				.89			
13	.88				.87			
OF								

	221	228	235	242	249	256	263	270
EPI	.79	.89	1.11	.93	.94	1.18	.99	.89
4	.81				.93			
6	.79				.86			
8	.86				.89			
9	.82				.85			
10	.93				.93			
11	.94				.89			
13	.87				.94			
OF								

	277	284	291	298	347
EPI	1.03	.95	.95	.92	1.01
4	.94		.92		.85
6	1.05		.97		.92
8	.97		.92		.85
9	.94		.86		.92
10	1.05		.86		1.00
11	.97		.88		.92
13	1.03		.86		.97
OF					

LAKE 302N K (mg/L) 1983

DEPTH(m) DAY #

	011	046	074	129	137	144	151	158
EPI	.55	.37	.35	.45	.43	.41	.43	.41
4	.39	.41	.37	.45				
6	.43	.39	.39	.45				
8	.45	.41	.39	.50				
9	.45	.41	.39	.43				
10	.49	.47	.43	.43				
11	.67	.53	.39	.45				
13	.53	.53	.49	.57				
OF								

	165	172	179	185	193	200	207	214
EPI	.30	.40	.42	.40	.39	.43	.43	.45
4	.32				.39			
6	.32				.39			
8	.35				.41			
9	.35				.47			
10	.37				.47			
11	.35				.47			
13	.37				.47			
OF								

	221	228	235	242	249	256	263	270
EPI	.34	.32	.38	.30	.49	.49	.49	.47
4	.36				.47			
6	.36				.47			
8	.40				.51			
9	.44				.53			
10	.40				.55			
11	.42				.57			
13	.42				.59			
OF								

	277	284	291	298	347
EPI	.46	.48	.50	.46	.51
4	.46		.52		.49
6	.48		.48		.49
8	.46		.49		.51
9	.50		.50		.49
10	.60		.52		.49
11	.62		.52		.51
13	.62		.52		.53
OF					

LAKE 302W Ca (mg/L) 1983

DEPTH(m)	DAY #							
	011	046	074	129	137	144	151	159
EPI	2.08	2.30	2.08	1.64	1.79	1.72	1.95	1.98
4	2.02	2.30	1.91	1.79				
6	2.41	2.13	2.24	1.83				
8	2.68	2.02	2.95	1.69				
9	2.35	1.91	1.75	1.74				
10	7.27	1.91	1.64	1.74				
11	1.64	2.62	3.66	1.99				
13	3.94	4.37	4.43	4.51				
OF								

	165	172	179	186	193	200	207	214
EPI	1.72	1.68	1.65	1.79	1.73	1.78	1.78	1.63
4	1.98				1.78			
6	1.93				2.02			
8	2.15				1.92			
9	2.15				1.87			
10	2.19				2.31			
11	2.19				2.50			
13	2.28				2.40			
OF								

	221	228	235	242	249	256	263	270
EPI	1.76	1.62	2.33	1.76	1.71	1.62	1.57	1.57
4	1.62				1.89			
6	1.76				1.93			
8	1.57				1.30			
9	1.38				1.44			
10	2.95				3.96			
11	2.71				3.91			
13	2.62				3.37			
OF								

	277	284	291	298	347
EPI	1.76	1.58	2.16	1.96	1.88
4	1.84		2.09		1.93
6	1.72		2.16		1.88
8	1.76		2.04		1.83
9	1.24		2.16		1.93
10	4.73		2.37		1.93
11	4.25		2.29		2.02
13	4.21		2.04		1.83
OF					

LAKE 302W Mg (mg/L) 1983

DEPTH(m)	DAY #							
	011	046	074	129	137	144	151	159
EPI	.69	.69	.67	.61	.64	.61	.63	.66
4	.66	.67	.65	.62				
6	.69	.66	.69	.61				
8	.71	.65	.72	.62				
9	.74	.66	.65	.62				
10	.81	.67	.69	.61				
11	.67	.65	.69	.64				
13	.75	.77	.78	.78				
OF								

	165	172	179	186	193	200	207	214
EPI	.58	.52	.58	.58	.68	.65	.52	.67
4	.65				.66			
6	.64				.71			
8	.67				.71			
9	.67				.77			
10	.67				.71			
11	.69				.68			
13	.72				.72			
OF								

	221	228	235	242	249	256	263	270
EPI	.63	.63	.68	.67	.61	.64	.61	.62
4	.61				.66			
6	.64				.66			
8	.68				.68			
9	.73				.74			
10	.69				.71			
11	.67				.71			
13	.69				.72			
OF								

	277	284	291	298	347
EPI	.64	.66	.72	.71	.62
4	.65		.73		.62
6	.64		.76		.63
8	.63		.73		.60
9	.66		.75		.63
10	.73		.69		.63
11	.70		.74		.64
13	.73		.73		.71
OF					

LAKE 302N Mn (mg/L) 1983

DEPTH(m)	DAY #							
	011	046	074	129	137	144	151	158
EPI	.02	< .02	.02	.06	.03	.04	.03	.01
4	.02	.02	.04	.04				
6	.02	.02	.04	.06				
8	.02	.02	.06	.06				
9	.04	.02	.08	.07				
10	.18	.10	.12	.07				
11	.43	.47	.87	.10				
13	.94	1.39	1.20	.78				
OF								

	165	172	179	195	193	200	207	214
EPI	.01	< .02	< .02	< .02	< .01	< .01	< .01	< .01
4	.01				< .01			
6	.01				< .01			
8	.10				.16			
9	.16				.33			
10	.24				.37			
11	.27				.37			
13	.29				.37			
OF								

	221	228	235	242	249	256	263	270
EPI	< .01	.01	.01	.01	< .01	.01	.03	.04
4	< .01				< .01			
6	< .01				< .01			
8	.25				.33			
9	.45				.60			
10	.42				.60			
11	.45				.59			
13	.43				.44			
OF								

	277	284	291	298	347
EPI	.03	.04	.07	.06	.03
4	.03		.07		.01
6	.01		.07		.01
8	.03		.07		.01
9	.26		.07		.03
10	.82		.07		.04
11	.73		.09		.11
13	.72		.07		.60
OF					

LAKE 302N Fe (mg/L) 1983

DEPTH(m)	DAY #							
	011	046	074	129	137	144	151	158
EPI	< .05	.05	< .05	.03	< .03	< .03	.03	.03
4	.05	.05	.05	.03				
6	< .05	.05	< .05	.03				
8	< .05	.05	.05	.07				
9	< .05	.10	.10	.10				
10	< .05	.15	.15	.10				
11	.50	1.50	2.40	.17				
13	2.30	9.00	8.75	4.67				
OF								

	165	172	179	196	193	200	207	214
EPI	.03	.04	.04	.04	.04	.04	.04	.04
4	.08				.04			
6	.03				.04			
8	.11				.23			
9	.14				.39			
10	.19				1.51			
11	.41				1.98			
13	.91				2.29			
OF								

	221	228	235	242	249	256	263	270
EPI	< .04	< .04	< .04	< .04	.04	.04	< .04	< .04
4	< .04				< .04			
6	.04				.04			
8	.12				.08			
9	.37				.28			
10	2.28				3.40			
11	2.85				3.89			
13	3.09				3.48			
OF								

	277	284	291	298	347
EPI	< .04	< .04	< .04	< .04	.11
4	< .04		< .04		.04
6	< .04		< .04		.08
8	< .04		< .04		.08
9	.04		< .04		.08
10	3.45		.04		.11
11	5.34		.04		.19
13	5.52		.04		.53
OF					

LAKE 302N Ferrous-Fe (mg/L) 1983

DEPTH(m)	DAY #							
	011	046	078	129	137	144	151	158
EPI	.01	.01	< .01	< .01				
4	< .01	.01	< .01	< .01				
6	< .01	< .01	< .01	< .01				
8	< .01	.01	.01	.02				
9	< .01	.01	.01	< .01				
10	.01	.01	.02	< .01				
11	.45	1.21	2.51	.02				
13	7.10	8.63	6.91	5.51				
OF								

	165	172	179	195	193	200	207	214
EPI	< .01				< .01			
4	< .01				< .01			
6	< .01				< .01			
8	< .01				< .01			
9	< .01				.06			
10	.02				1.22			
11	.32				1.97			
13	.86				2.24			
OF								

	221	228	235	242	249	256	263	270
EPI	< .01				< .01			
4	< .01				< .01			
6	< .01				< .01			
8	< .01				.01			
9	.55				.15			
10	2.42				3.83			
11	3.17				4.41			
13	3.41				4.66			
OF								

	277	284	291	298	347
EPI	< .01		.01		< .01
4	< .01		.01		.01
6	< .01		.01		< .01
8	.01		.01		< .01
9	.01		.01		< .01
10	4.10		.01		.01
11	6.04		.01		.02
13	6.61		.02		.62
OF					

LAKE 302N Susp Fe (ug/L) 1983

DEPTH(m)	DAY #							
	011	046	078	129	137	144	151	158
EPI	72	43	26	107				
4	42	40	43	109				
6	43	40	60	123				
8	50	51	101	119				
9	173	94	137	156				
10	246	138	261	167				
11	322	161	112	281				
13	176	175	192	1149				
OF								

	165	172	179	195	193	200	207	214
EPI	34				19			
4	32				27			
6	46				65			
8	122				163			
9	273				495			
10	862				216			
11	902				112			
13	766				79			
OF								

	221	228	235	242	249	256	263	270
EPI					14			
4					18			
6					47			
8					132			
9					888			
10					153			
11					105			
13					1752			
OF								

	277	284	291	298	347
EPI	57		196		50
4	53		186		51
6	54		189		47
8	76		175		52
9	216		200		76
10	175		187		189
11	126		210		493
13	128		208		1477
OF					

LAKE 302N SRSi (mg/L) 1993

DEPTH(m)	DAY #							
	011	046	074	129	137	144	151	158
EPI	.076	.088	.129	.209	.205	.149	.110	.097
4	.108	.154	.209	.099				
6	.127	.154	.253	.071				
8	.140	.156	.332	.051				
9	.343	.265	.390	.049				
10	.515	.334	.441	.033				
11	.647	.602	.709	.075				
13	1.220	1.290	1.650	.493				
OF								

	165	172	179	185	193	200	207	214
EPI	.059	.094	.090	.100	.114	.116	.127	.139
4	.053				.095			
6	< .005				.017			
8	.170				.160			
9	.342				.368			
10	.447				.496			
11	.489				.549			
13	.525				.601			
OF								

	221	228	235	242	249	256	263	270
EPI	.151	.153	.169	.179	.173	.150	.114	.095
4	.130				.172			
6	.006				.023			
8	.064				< .005			
9	.359				.393			
10	.597				.699			
11	.696				.767			
13	.751				.752			
OF								

	277	284	291	298	347
EPI	.069	.077	.104	.092	.071
4	.056		.102		.085
6	.065		.103		.089
8	.032		.102		.105
9	.229		.104		.145
10	.692		.128		.237
11	.875		.109		.387
13	.925		.108		.480
OF					

LAKE 302N Chl-a (ug/L) 1993

DEPTH(m)	DAY #							
	011	046	074	129	137	144	151	158
EPI	12.8	3.9	1.2	3.9	4.8	4.5	2.6	2.0
4	5.0	1.5	.9	4.6				
6	4.7	1.4	.9	3.5				
8	4.2	1.5	.9	3.9				
9	5.1	1.7	1.1	4.0				
10	7.0	2.2	1.6	3.9				
11	9.1	4.9	3.4	8.1				
13	26.4	15.4	10.9	4.1				
OF								

	165	172	179	185	193	200	207	214
EPI	2.4	4.0	2.9	4.4	3.3	3.3	2.4	3.4
4	2.8				4.5			
6	3.7				6.3			
8	8.2				5.0			
9	7.6				14.9			
10	12.2				10.4			
11	10.2				10.2			
13	7.9				10.7			
OF								

	221	228	235	242	249	256	263	270
EPI	3.6	3.3	3.1	3.5	2.5	2.3	3.0	2.8
4	7.1				2.8			
6	7.7				5.1			
8	9.2				9.9			
9	36.7				29.1			
10	43.4				35.1			
11	38.5				38.6			
13	35.9				28.5			
OF								

	277	284	291	298	347
EPI	4.9	4.0	4.6	3.5	4.2
4	5.4		3.6		2.5
6	4.7		3.9		2.2
8	4.4		3.4		2.2
9	12.6		4.1		2.3
10	35.7		4.5		3.2
11	37.6		3.9		4.3
13	42.1		3.8		26.1
OF					

LAKE 302N Colour (abs425nm) 1983

DEPTH(m) DAY #

	011	046	074	129	137	144	151	158
EPI	.051	.055	.055	.056				
4	.050	.050	.057	.056				
6	.049	.052	.058	.066				
8	.049	.052	.059	.059				
9	.045	.058	.061	.064				
10	.056	.052	.063	.053				
11	.120	.112	.170	.075				
13	.668	.578	.649	.422				
OF								

	165	172	179	186	193	200	207	214
EPI	.054				.058			
4	.056				.057			
6	.064				.050			
8	.078				.066			
9	.079				.089			
10	.032				.128			
11	.131				.129			
13	.142				.143			
OF								

	221	228	235	242	249	256	263	270
EPI	.030				.083			
4	.041				.082			
6	.038				.052			
8	.040				.058			
9	.081				.113			
10	.120				.173			
11	.152				.239			
13	.214				.201			
OF								

	277	284	291	298	387
EPI	.041		.039		.033
4	.042		.041		.036
6	.035		.043		.030
8	.039		.042		.037
9	.045		.042		.035
10	.249		.043		.035
11	.405		.046		.043
13	.447		.041		.062
OF					

Appendix 15

Lake 302 south basin 1968 water chemistry data

LAKE 302S Temp (C) 1968

DEPTH(m)	DAY # 165	188
EPI	16.20	19.20
4	14.30	17.40
6	9.20	11.00
8	7.40	8.10

LAKE 302S NO3-N (ug/L) 1968

DEPTH(m)	DAY # 165	188
EPI	1	
4	1	
6	26	
8	24	

LAKE 302S Cond (uS/cm) 1968

DEPTH(m)	DAY # 165	188
EPI	14	13
4	14	12
6	17	16
8		

LAKE 302S Na (mg/L) 1968

DEPTH(m)	DAY # 165	188
EPI	.50	.47
4	.51	.44
6	.60	.63
8		

LAKE 302S O2 (mg/L) 1968

DEPTH(m)	DAY # 165	188
EPI	9.60	
4		
6		
8		

LAKE 302S K (mg/L) 1968

DEPTH(m)	DAY # 165	188
EPI	.31	.33
4	.29	.28
6	.33	.42
8		

LAKE 3025 Ca (mg/L) 1968

DEPTH(m)	DAY #	
	165	188
EPI	1.31	1.33
4	1.39	1.33
6	1.66	1.60
8		

LAKE 3025 Mg (mg/L) 1968

DEPTH(m)	DAY #	
	165	188
EPI	.96	.67
4	1.00	.68
6	1.13	.81
8		

LAKE 3025 Chl-a (ug/L) 1968

DEPTH(m)	DAY #	
	165	188
EPI		
4		
6		
8	6.0	8.3

Appendix 16

Lake 302 south basin 1972 water chemistry data

LAKE 3025 Temp (C) 1972

DEPTH(m)	DAY #							
	153	167	181	195	209	223	237	251
EPI	18.41	17.23	21.66	21.39	20.64	18.58	20.80	17.12
2	18.35	17.23	20.56	21.33	20.62	18.58	20.38	17.13
3	16.31	17.23	19.31	21.11	20.53	18.58	20.18	17.13
5	8.16	9.73	12.23	14.11	16.08	17.84	17.75	17.13
7	6.96	7.79	8.21	8.93	10.08	10.26	11.12	12.28
9	6.49	6.63	6.99	7.41	7.85	7.89	8.18	8.73
10	6.40	6.44	6.81	7.11	7.64	7.56	7.88	8.18

	258	265	272	279	286	293	320	348
EPI		14.59		10.75		5.76		2.22
2		14.63		10.76		5.76		2.54
3		14.63		10.63		5.79		2.74
5		14.63		10.52		5.80		3.17
7		13.46		10.38		5.90		3.72
9		8.81		9.53		5.71		4.14
10		8.51		8.19		5.61		4.42

LAKE 3025 pH 1972

DEPTH(m)	DAY #							
	153	167	181	195	209	223	237	251
EPI	6.94	6.80	6.77	6.92	6.79	6.87	6.79	6.68
2	6.91	6.91	6.76	6.98	6.82	6.85	6.80	6.35
3	6.93	6.97	6.87	7.02	6.84	6.88	6.76	6.64
5	6.64	6.63	6.58	6.93	6.80	6.82	6.73	6.65
7	6.36	6.34	6.11	6.36	6.18	6.17	6.20	6.12
9	6.25	6.13	6.02	6.19	6.27	6.13	6.21	6.15
10	6.25	6.17	6.07	6.24	6.22	6.14	6.14	6.50

	258	265	272	279	286	293	320	348
EPI		6.57		6.63		6.58		
2		6.60		6.62		6.68		6.75
3		6.58		6.52		6.67		6.83
5		6.54		6.59		6.64		6.61
7		6.53		6.47		6.59		6.36
9		6.53		6.35		6.60		6.21
10		6.57		6.66		6.63		6.26

LAKE 3025 Cond (uS/cm) 1972

DEPTH(m)	DAY #							
	153	167	181	195	209	223	237	251
EPI	19	18	19	18	18	18	17	18
2	19	18	18	19	18	18	17	19
3	18	18	18	18	18	18	17	18
5	18	18	18	19	18	18	18	18
7	21	19	19	19	20	21	20	23
9	21	21	23	23	21	25	28	27
10	23	23	24	27	28	30	28	44

	258	265	272	279	286	293	320	348
EPI		18		18		23		
2		18		18		24		21
3		18		18		24		20
5		18		18		24		20
7		18		18		24		21
9		49		19		24		25
10		56		86		24		28

LAKE 3025 O2 (mg/L) 1972

DEPTH(m)	DAY #							
	153	167	181	195	209	223	237	251
EPI	8.64	9.00	8.32	8.45	8.58	8.99	8.59	8.31
2	8.63	8.95	8.30	8.47	8.55	8.81	8.61	8.90
3	9.11	8.97	9.25	8.44	8.49	8.80	8.57	8.36
5	9.31	10.48	10.40	11.19	11.11	8.90	8.46	8.39
7	6.62	7.66	4.23	7.43	3.29	4.41	4.41	1.41
9	1.96	1.83	< .01	1.01	.04	.05	.29	< .01
10	.13	.68	.48	< .01	< .01	< .01	< .01	< .01

	258	265	272	279	286	293	320	348
EPI		8.60		9.82		10.84		
2		9.11		9.75		10.74		11.54
3		9.06		9.70		10.73		11.81
5		8.44		9.53		10.77		10.50
7		8.31		8.82		10.93		7.27
9		< .01		7.78		10.90		.80
10		< .01		< .01		10.68		.62

LAKE 302S NH3-N (ug/L) 1972

DEPTH(m) DAY #

	153	167	181	195	209	223	237	251
EPI	38	14	14	20	6	7	9	9
2	18	23	21	15	6	5	9	11
3	43	8	19	41	6	7	9	6
5	27	12	9	8	8	5	9	6
7	38	14	9	8	8	5	14	6
9	195	185	325	248	122	222	284	225
10	276	327	343	412	560	578	286	550

	258	265	272	279	286	293	320	348
EPI		11		2		31		
2		11		5		25		31
3		8		5		25		34
5		8		2		21		53
7		8		7		25		114
9		614		42		23		392
10		784		2120		25		670

LAKE 302S NO3-N (ug/L) 1972

DEPTH(m) DAY #

	153	167	181	195	209	223	237	251
EPI	20	2	2	2	1	1	2	2
2	21	1	1	1	2	1	2	1
3	21	1	1	1	1	1	2	1
5	38	12	1	1	1	1	2	2
7	49	35	11	1	1	1	2	2
9	33	31	4	1	2	1	2	4
10	34	8	7	2	6	2	2	8

	258	265	272	279	286	293	320	348
EPI		2		2		1		
2		2		1		1		7
3		2		1		1		7
5		2		1		1		12
7		2		1		1		41
9		11		1		1		27
10		14		14		1		17

LAKE 302S TDN (ug/L) 1972

DEPTH(m) DAY #

	153	167	181	195	209	223	237	251
EPI	202	230	204	286	186	208	150	244
2	186	232	170	224	224	200	172	224
3	182	202	164	208	184	210	172	232
5	178	194	206	230	168	218		178
7	196	204	170	172	220	236	226	242
9	280	300	478	456	380	612	402	1250
10	320	424	348	566	548	490	272	

	258	265	272	279	286	293	320	348
EPI		206		160		252		
2		196		204		210		305
3		228		192		242		306
5		292		186		230		258
7		502		236		212		340
9		1268		188		210		650
10		1380		2100				926

LAKE 302S Susp N (ug/L) 1972

DEPTH(m) DAY #

	153	167	181	195	209	223	237	251
EPI	29	18	28	72	80	82	81	59
2	87	23	23	66	62	84	81	59
3	38	28	68	75	88	61	81	87
5	95	81	53	64	66	84	76	85
7	62	81	105	133	154	147	72	89
9	111	89	160	175	123	292	292	174
10	189	142	443	303	229	338	300	214

	258	265	272	279	286	293	320	348
EPI		101		29		71		
2		77		19		90		298
3		74		36		71		201
5		77		26		82		113
7		64		28		56		96
9		306		26		80		254
10		317		246		84		380

LAKE 3025 TDP (ug/L) 1972

DEPTH(m)	DAY #							
	153	167	181	195	209	223	237	251
EPI	5	3	3	3	6	2	2	1
2	2	3	2	3	4	3	3	3
3	2	3	2	3	5	3	3	2
5	2	3	2	1	4	2	3	1
7	2	4	3	3	9	4	3	2
9	3	4	3	4	5	9	5	4
10	4	4	5	3	7	4	5	

	258	265	272	279	286	293	320	348
EPI		1		2		9		
2		2		3		3		4
3		2		3		4		4
5		2		3		4		2
7		1		4		6		3
9		5		3		6		4
10		5		9		5		5

LAKE 3025 DIC (uM/L) 1972

DEPTH(m)	DAY #							
	153	167	181	195	209	223	237	251
EPI	87	81	97	74	78	76	77	90
2	85	78	98	74	82	77	74	90
3	92	78	81	72	83	71	78	90
5	160	134	117	93	98	78	93	90
7	219	187	280	237	348	295	342	426
9	361	380	497	479	305	502	637	630
10	436	470	519	544	633	639	631	760

	258	265	272	279	286	293	320	348
EPI		110		95		117		
2		113		98		109		98
3		114		90		113		118
5		125		100		119		151
7		129		112		122		253
9		838		156		109		479
10		910		1109		109		535

LAKE 3025 Susp P (ug/L) 1972

DEPTH(m)	DAY #							
	153	167	181	195	209	223	237	251
EPI	5	5	8	4	4	4	3	5
2	6	6	9	4	8	4	3	2
3	9	6	7	3	4	3	3	5
5	6	10	6	5	8	5	7	5
7	9	11	18	16	20	11	13	12
9	10	26	24	22	19	30	25	30
10	13	24	51	33	33	36	27	39

	258	265	272	279	286	293	320	348
EPI		7		6		10		
2		5		4		7		16
3		5		5		8		12
5		7		5		9		10
7		8		6		9		11
9		55		6		8		22
10		89		96		9		45

LAKE 3025 DOC (uM/L) 1972

DEPTH(m)	DAY #							
	153	167	181	195	209	223	237	251
EPI	244	331	374	403	398		284	
2	369	336		371	363		261	288
3	360	335	371	416	349	285	262	153
5	375		351	381	382	208	277	250
7	353	296	334	388	398	330	256	169
9	350	313					303	259
10	324	264	244	165	302	340	231	267

	258	265	272	279	286	293	320	348
EPI		345		354		340		
2		436		354		331		419
3		309		358		371		372
5		322		316		302		387
7		326		365		354		364
9		382		343		328		401
10		454		1151		353		383

LAKE 302S Susp C (ug/L) 1972

DEPTH(m)	DAY #							
	153	167	181	195	209	223	237	251
EPI	670	890	570	630	940	760	800	610
2	720	800	690	610	950	700	780	670
3	660	890	800	630	950	570	830	650
5	800	940	860	700	1150	730	970	650
7	1000	1010	1470	1100	2500	1280	1140	1000
9	1010	1410	2010	1330	1580	2300	3490	1650
10	1090		4830	2140	2340	2339	3330	1790

DEPTH(m)	DAY #							
	258	265	272	279	286	293	320	348
EPI		918		942		848		
2		794		800		922		2154
3		750		973		894		1434
5		798		965		929		970
7		798		923		731		810
9		2345		854		866		522
10		2314		2475		929		2781

LAKE 302S Cl (mg/L) 1972

DEPTH(m)	DAY #							
	153	167	181	195	209	223	237	251
EPI	.2		.3		.4		.2	
2	.4		.3		.3		.2	
3	.4		.3		.2		.2	
5	.4		.1		.3		.3	
7	.3		.2		2.8		.2	
9	.3		.6		8.0		.2	
10	.4		.4		.2		.2	

DEPTH(m)	DAY #							
	258	265	272	279	286	293	320	348
EPI		.2				.4		
2		.2				.4		.6
3		.1				.4		.7
5		.2				.4		.6
7		.1				.4		.4
9		.2				.3		.5
10		.3				.4		.5

LAKE 302S CH4-C (uM/L) 1972

DEPTH(m)	DAY #							
	153	167	181	195	209	223	237	251
EPI	1	1	1	3	1	1	1	1
2	1	1	1	3	1	1	1	1
3	1	1	1	1	1	1	1	1
5	1	1	1	1	1	1	1	1
7	1	1	1	1	1	1	1	1
9	1	1	16	60	23	38	119	111
10	11	31	40	104	122	153	120	197

DEPTH(m)	DAY #							
	258	265	272	279	286	293	320	348
EPI		1		1				
2		1		1				1
3		1		1				1
5		1		1				1
7		1		3				1
9		272		12				1
10		308		602				39

LAKE 302S SO4 (mg/L) 1972

DEPTH(m)	DAY #							
	153	167	181	195	209	223	237	251
EPI	2.5		2.9		2.6		2.9	
2	2.5		3.0		2.6		2.9	
3	2.5		3.0		2.6		2.9	
5	2.0		2.9		2.5		2.9	
7	2.4		2.8		2.4		2.6	
9	2.2		1.9		2.3		2.1	
10	2.2		1.9		1.9		2.1	

DEPTH(m)	DAY #							
	258	265	272	279	286	293	320	348
EPI		2.7				2.9		
2		2.7				3.0		3.4
3		2.7				3.1		3.2
5		2.6				3.1		3.1
7		2.7				3.1		3.2
9		1.3				3.1		2.7
10		1.0				3.1		2.4

LAKE 3025 Na (mg/L) 1972

DEPTH(m)	DAY #							
	153	167	181	195	209	223	237	251
EPI	.68	.73	.68		.65		.59	
2	.67	.75	.65		.80		.59	
3	.77	.74	.67		.71		.62	
5	.74	.72	.63		.67		.66	
7	.69	.74	.68		.75		.64	
9	.69	.72	.68		.70		.70	
10	.90	.74	.67		.74		.73	

	258	265	272	279	286	293	320	348
EPI		.61				1.01		
2		.61				.72		.80
3		.60				.78		.75
5		.64				.83		.73
7		.62				.90		.68
9		.67				1.17		.71
10		.66				.84		.72

LAKE 3025 Ca (mg/L) 1972

DEPTH(m)	DAY #							
	153	167	181	195	209	223	237	251
EPI	1.39	1.52	1.52		1.50		1.46	
2	1.42	1.58	1.46		1.51		1.40	
3	1.40	1.52	1.56		1.51		1.59	
5	1.45	1.54	1.56		1.54		1.46	
7	1.47	1.75	1.62		1.69		1.54	
9	1.55	1.65	1.57		1.74		1.44	
10	1.53	1.68	1.74		2.36		2.08	

	258	265	272	279	286	293	320	348
EPI		1.49				1.51		
2		1.58				1.53		1.46
3		1.58				1.50		1.43
5		1.61				1.57		1.42
7		1.55				1.54		1.47
9		3.06				1.61		1.54
10		3.31				1.46		2.03

LAKE 3025 K (mg/L) 1972

DEPTH(m)	DAY #							
	153	167	181	195	209	223	237	251
EPI	.36	.36	.37		.35		.19	
2	.36	.38	.35		.52		.20	
3	.39	.35	.35		.37		.20	
5	.37	.38	.35		.37		.35	
7	.37	.35	.38		.40		.37	
9	.39	.36	.41		.42		.37	
10	.40	.37	.39		.46		.41	

	258	265	272	279	286	293	320	348
EPI		.29				.41		
2		.29				.40		.34
3		.29				.40		.32
5		.30				.41		.31
7		.29				.41		.33
9		.40				.42		.35
10		.44				.40		.37

LAKE 3025 Mg (mg/L) 1972

DEPTH(m)	DAY #							
	153	167	181	195	209	223	237	251
EPI	.59	.64	.65		.58		.63	
2	.57	.65	.63		.57		.65	
3	.59	.62	.63		.58		.63	
5	.58	.64	.63		.59		.71	
7	.60	.72	.66		.63		.79	
9	.58	.65	.69		.61		.72	
10	.58	.66	.66		.63		.73	

	258	265	272	279	286	293	320	348
EPI		.58				.62		
2		.59				.61		.61
3		.60				.61		.59
5		.59				.64		.57
7		.58				.62		.59
9		.69				.65		.62
10		.71				.61		.65

LAKE 302S Fe (mg/L) 1972

DEPTH(m)	DAY #							
	153	167	181	195	209	223	237	251
EPI								
2								
3								
5								
7								
9								
10								

	258	265	272	279	286	293	320	348
EPI						.05		
2						.04		
3						.04		
5						.03		
7						.04		
9						.03		
10						.06		

LAKE 302S Chl-a (ug/L) 1972

DEPTH(m)	DAY #							
	153	167	181	195	209	223	237	251
EPI	2.6	3.8	2.0	3.4	2.5	2.9	4.2	5.8
2	2.7	3.4	3.1	4.6	2.8	2.8	4.2	6.0
3	2.8	4.4	3.9	3.0	3.9	2.6	4.2	5.5
5	3.5	5.5	4.2	6.4	4.8	3.2	7.6	5.0
7	8.3	7.9	14.8	15.0	19.2	8.9	7.6	11.0
9	6.6	8.2	15.6	28.5	33.1	79.2	76.2	58.4
10	6.3	20.5	23.7	11.4	77.7	125.0	81.8	85.5

	258	265	272	279	286	293	320	348
EPI		6.4		7.1		9.9		
2		5.4		7.2		8.4		71.3
3		5.8		7.2		9.0		58.4
5		6.1		8.8		9.7		24.1
7		6.2		7.4		9.2		9.6
9		79.6		5.8		10.6		33.6
10		91.3		131.0		10.5		36.7

LAKE 302S SRSi (mg/L) 1972

DEPTH(m)	DAY #							
	153	167	181	195	209	223	237	251
EPI	.480	.314	.274		.440		.348	
2	.498	.324	.282		.440		.388	
3	.509	.324	.274		.406		.372	
5	.586	.450	.274		.338		.356	
7	.638	.460	.428		.498		.466	
9	.908	.774	.942		.718		.972	
10	1.010	.978	.950		1.170		1.020	

	258	265	272	279	286	293	320	348
EPI		.368				.466		
2		.368				.470		.402
3		.360				.464		.274
5		.360				.466		.314
7		.376				.469		.562
9		1.290				.466		.934
10		1.360				.466		1.000

LAKE 302S Colour (abs425nm) 1972

DEPTH(m)	DAY #							
	153	167	181	195	209	223	237	251
EPI	.060	.051	.037	.043	.048	.043	.065	.058
2	.052	.050	.036	.043	.046	.046	.065	.060
3	.056	.049	.040	.043	.048	.045	.079	.052
5	.071	.050	.040	.045	.050	.044	.072	.052
7	.060	.051	.043	.048	.060	.053	.054	.052
9	.082	.069	.081	.082	.095	.179	.122	.282
10	.104	.101	.097	.088	.297	.203	.115	.498

	258	265	272	279	286	293	320	348
EPI		.058		.057		.056		
2		.058		.057		.056		.072
3		.059		.091		.056		.062
5		.076		.067		.054		.060
7		.065		.059		.054		.064
9		.259		.067		.054		.090
10		.313		1.200		.073		.130

Appendix 17

Lake 302 south basin 1973 water chemistry data

LAKE 3025 Temp (C) 1973

DEPTH(m)	DAY #							
	024	052	080	107	127	141	155	159
EPI					7.28	14.35	17.00	
2	2.72	2.12	2.50	4.20	7.21	13.57	17.00	
3	3.17	3.08	3.30	4.20	7.09	11.11	16.80	
5	3.69	3.80	4.30	4.30	6.39	9.00	10.29	
7	4.37	4.43	4.52	4.50	6.19	6.97	7.65	
9	4.70	4.73	4.92	5.00	6.00	6.41	6.75	
10	5.06	5.01	5.25	5.20	5.95	6.35	6.61	

	169	183	197	211	225	239	253	267
EPI	17.90	20.88	20.92	19.08	20.95	21.65	18.65	12.57
2	17.80	19.75	20.92	19.07	20.85	21.61	18.59	12.57
3	17.65	19.30	20.92	19.10	20.90	21.59	18.65	12.57
5	12.28	14.10	15.69	18.00	13.61	18.78	18.60	12.57
7	8.59	9.35	10.05	10.57	11.01	11.61	13.60	12.52
9	7.10	7.25	7.90	7.62	8.52	8.25	8.55	8.82
10	7.00	7.07	7.52	7.52	7.90	7.94	8.30	7.89

	281	295	309	353
EPI	12.77	9.21	5.17	1.95
2	12.77	9.12	5.17	3.62
3	12.77	9.12	5.17	4.00
5	12.68	9.01	5.13	4.15
7	12.52	8.96	5.09	4.32
9	10.25	8.91	5.05	4.85
10	8.27	8.91	5.05	5.30

LAKE 3025 Cond (uS/cm) 1973

DEPTH(m)	DAY #							
	024	052	080	107	127	141	155	159
EPI					19	18	19	
2	22	20	20	20	19	19	18	
3	21	20	20	21	19	18	18	
5	21	21	21	21	19	19	18	
7	22	21	22	22	20	20	20	
9	34	32	40	59	20	21	23	
10	55	53	46	58	21	21	24	

	169	183	197	211	225	239	253	267
EPI	18	19	19	18	18	19	19	19
2	18	19	19	18	18	19	18	19
3	19	18	19	19	19	19	19	19
5	19	19	19	18	19	20	19	19
7	21	22	21	19	21	21	24	19
9	26	32	32	31	57	75	79	79
10	29	37	37	55	77	81	87	94

	281	295	309	353
EPI	19	19	21	23
2	19	19	22	21
3	19	19	21	21
5	19	19	21	21
7	19	19	22	20
9	79	19	22	21
10	114	19	23	33

LAKE 302S pH 1973

DEPTH(m)	DAY #							
	024	052	080	107	127	141	155	159
EPI					6.39	6.46	6.52	
2	6.44	6.32	6.35	6.20	6.36	6.69	6.69	
3	6.32	6.24	6.14	6.24	6.30	6.81	6.76	
5	5.83	6.01	5.95	6.21	6.21	6.76	6.73	
7	5.72	5.91	5.87	6.08	6.17	6.18	6.19	
9	6.29	6.33	6.44	6.63	6.11	6.09	6.03	
10	6.49	6.52	6.56	6.55	6.12	6.10	6.04	

	169	183	197	211	225	239	253	267
EPI	6.95	6.95	6.90	6.69	6.90	6.90	6.55	6.52
2	6.90	6.90	6.89	6.72	6.81	6.78	6.56	6.59
3	6.81	6.84	6.89	6.79	6.79	6.75	6.61	6.53
5	6.73	6.87	6.74	6.61	6.46	6.43	6.53	6.51
7	6.06	6.10	6.09	5.92	5.92	5.96	6.04	6.49
9	6.06	6.25	6.25	6.11	6.58	6.76	6.65	6.70
10	6.16	6.33	6.36	6.55	6.71	6.90	6.74	6.73

	281	295	309	353
EPI	6.55	6.50	6.54	6.57
2	6.57	6.49	6.49	6.23
3	6.54	6.49	6.49	6.22
5	6.50	6.43	6.52	6.19
7	6.39	6.46	6.47	6.19
9	6.70	6.42	6.45	6.02
10	6.81	6.44	6.47	6.16

LAKE 302S O2 (mg/L) 1973

DEPTH(m)	DAY #							
	024	052	090	107	127	141	155	159
EPI					10.40	10.32	9.23	
2	12.06	10.04	9.97	7.32	10.30	10.59	9.21	
3	10.02	9.20	8.90	7.35	10.10	11.35	9.22	
5	5.32	6.01	5.82	7.32	9.50	11.20	10.96	
7	.82	2.90	1.73	4.00	9.00	8.34	7.75	
9	< .01	.21	< .01	< .01	5.40	5.91	2.92	
10	< .01	< .01	< .01	< .01	7.90		.39	

	169	183	197	211	225	239	253	267
EPI	8.91	8.58	8.38	8.79	8.42	8.00	8.27	8.91
2	8.88	8.80	8.40	8.78	8.50	8.30	8.29	8.81
3	9.02	8.92	8.42	8.90	8.45	8.39	8.33	8.79
5	11.09	11.40	10.72	9.02	8.45	8.50	7.90	8.70
7	5.40	3.40	1.99	.68	3.68	1.99	.52	8.67
9	.25	< .01	< .01	.10	< .01	< .01	< .01	< .01
10	< .01	< .01	< .01	< .01	< .01	< .01	< .01	< .01

	281	295	309	353
EPI	9.27	9.90	9.82	12.90
2	9.50	10.05	10.40	9.90
3	9.32	10.13	9.60	8.95
5	9.12	10.00	10.25	8.40
7	8.30	9.40	8.99	8.40
9	.10	9.73	10.00	4.82
10	< .01	9.10	9.20	

LAKE 302S NH3-N (ug/L) 1973

DEPTH(m)	DAY #							
	024	052	080	107	127	141	155	159
EPI					9	3	16	
2	75	67	32	6	9	6	16	
3	75	20	6	4	7	3	13	
5	13	16	4	6	9	3	19	
7	21	24	15	15	16	12	32	
9	552	383	623	1330	75	118	255	
10	1630	1140	906	1300	82	144	365	

	169	183	197	211	225	239	253	267
EPI	8	10	4	5	3	6	4	8
2	8	10	4	5	3	3	4	8
3	11	7	2	5	3	3	4	8
5	21	7	2	5	3	3	7	8
7	100	105	4	5	3	6	16	17
9	460	622	673	615	903	1161	1433	1598
10	545	739	827	1025	1527	1364	1881	2065

	281	295	309	353
EPI	9	18	52	74
2	14	36	46	97
3	12	32	50	106
5	12	21	50	103
7	33	39	54	112
9	1391	43	54	247
10	2495	69	42	737

LAKE 302S NO3-N (ug/L) 1973

DEPTH(m)	DAY #							
	024	052	080	107	127	141	155	159
EPI					99	39	1	
2	9	27	76	135	103	39	2	
3	19	122	148	128	101	39	2	
5	208	191	205	148	98	47	13	
7	307	246	264	167	100	79	53	
9	10	87	35	16	95	75	46	
10	2	15	49	21	86	72	32	

	169	183	197	211	225	239	253	267
EPI	2	1	1	3	1	1	1	1
2	2	1	1	1	1	1	1	1
3	2	1	1	1	1	1	1	1
5	15	1	1	1	1	1	1	1
7	56	41	1	1	1	1	1	1
9	2	1	2	3	12	8	13	15
10	2	2	15	20	17	9	15	17

	281	295	309	353
EPI	5	1	2	11
2	4	1	1	19
3	4	1	1	21
5	4	1	1	23
7	6	1	1	21
9	18	1	1	35
10	23	1	1	11

LAKE 3025 TDN (ug/L.) 1973

DEPTH(m)	DAY #							
	024	052	080	107	127	141	155	159
EPI						196	279	
2	310	273	285	55	295	239	202	
3	324	283	313	393	248	233	188	
5	579	309	352	411	286		179	
7	607	380	409	531	281	224	247	
9	991	501	685	1413	298		352	
10	3080	909	566	1453	322	372	583	

	169	183	197	211	225	239	253	267
EPI	190	85		109	207	211	200	205
2	186	50			191	207	206	200
3	230	231	204	170	251	182	226	180
5		53	195		201	205	218	232
7	298	298	197	293	182	201	253	203
9	952	568		657	1215	1394	1961	1539
10	842	1640	851	1209	2032	1765	1974	2159

	281	295	309	353
EPI	196	228	254	235
2	187	232	252	276
3	220	229	254	274
5	190	220	262	299
7	204	246	239	302
9	1584	248	244	447
10	2955	252	249	

LAKE 3025 Susp N (ug/L.) 1973

DEPTH(m)	DAY #							
	024	052	080	107	127	141	155	159
EPI					40	104	669	
2	43	47	39	79	57	114	53	
3	69	96		72	80	128	106	
5	50	64	68	92	55	153	117	
7	56	53	50	47	23	106	180	
9	118	109	144	182	49	170	106	
10	237	238	154	150	10	136	254	

	169	183	197	211	225	239	253	267
EPI	53	80	101	189	107	99	119	155
2	64	72	64	131	91	118	239	97
3	42	94	94	136	33	57		100
5	74	113	84	146	129	126	110	130
7	117	149	245	279	208	241	305	100
9	244	259	314	537	496	344	422	335
10	265	370	385	457	551	39	524	363

	281	295	309	353
EPI	97	95	132	156
2	97	96	139	134
3	85	192	142	89
5	104	109	124	97
7	77	79	139	97
9	243	143	127	112
10	324	115	107	309

LAKE 302S TDP (ug/L) 1973

DEPTH(m)	DAY #							
	024	052	080	107	127	141	155	159
EPI					4	4	7	
2	6	7	5	4	5	3	8	
3	6	6	7	4	3	3	7	
5	16	7	6	4	3	3	4	
7	9	18	5	5	5	3	7	
9	5	15	8	6	5	5	6	
10	13	11	15	6	5	4	7	

DEPTH(m)	DAY #							
	169	183	197	211	225	239	253	267
EPI	2	4	3	3	6	4	3	44
2	4	4	4	3	3	3	3	15
3	4	5	3	8	16	4	3	6
5	2	10	3	12	8	5	3	3
7	4	14	5	10	12	5	5	11
9	4	20	7	9	16	12	12	7
10	3	20	7	10	15	12	14	11

DEPTH(m)	DAY #			
	281	295	309	353
EPI	3	1	4	4
2	5	1	4	4
3	4	1	5	4
5	4	1	4	4
7	4	2	3	3
9	9	5	4	4
10	11	2	4	5

LAKE 302S Susp P (ug/L) 1973

DEPTH(m)	DAY #							
	024	052	080	107	127	141	155	159
EPI					7	4	7	
2		8		6	10	6	7	
3	5	9	5	5	7	6	5	
5	7	8	6	8	9	6	5	
7	10	8	5	7	5	8	11	
9	25	21	27	30	6	10	20	
10	47	35	29	30	7	11	39	

DEPTH(m)	DAY #							
	169	183	197	211	225	239	253	267
EPI	6	7	3	4		3	5	20
2	6	4	3	3		3	4	19
3	3	4	3	3		5	5	14
5	9	6	3	2		6	5	7
7	11	13	10	14		23	19	
9	33	43	40	31		43	45	39
10	34	57	47	33		49	55	43

DEPTH(m)	DAY #			
	281	295	309	353
EPI	7	6	12	12
2	4	6	12	8
3	3	6	10	6
5	6	5	10	9
7	3	6	10	10
9	26	6	9	12
10	41	8		52

LAKE 302S DIC (uM/L) 1973

DEPTH(m)	DAY #							
	024	052	080	107	127	141	155	159
EPI					139	75	95	
2	146	152	174	237	144	76	89	
3	172	167	206	259	152	71	86	
5	286	249	292	256	180	89	84	
7	410	332	446	374	179	217	222	
9	611	519	652	933	249	294	397	
10	870	774	761	941	253	302	491	

	169	183	197	211	225	239	253	267
EPI	73	74	75	87	73	79	111	143
2	73	73	79	85	73	80	108	135
3	90	72	79	79	77	85	101	150
5	90	85	107	108	133	152	120	135
7	300	355	412	456	482	497	553	156
9	515	649	659	685	907	1011	1150	1460
10	557	711	727	844	1115	1099	1218	1540

	281	295	309	353
EPI	95	109	123	103
2	96	115	125	151
3	105	113	115	169
5	108	123	112	175
7	138	129	121	177
9	1370	129	118	294
10	1352	146	132	545

LAKE 302S DOC (uM/L.) 1973

DEPTH(m)	DAY #							
	024	052	080	107	127	141	155	159
EPI					515		194	
2	234	472	413	457	253		299	
3	242	426	419	496	504		424	
5	528	599	372	207	377		435	
7	458	397	364	536	222		395	
9	525	470	497	713	509		397	
10	513	543	558	731	495		373	

	169	193	197	211	225	239	253	267
EPI		419		430				457
2		396		411		462		440
3		396		403		463		
5		397		395		445		
7		374				417		
9		363				1059		1304
10		395		501		1132		1413

	281	295	309	353
EPI		494	359	320
2	369	493	359	209
3	438	462	349	252
5	397	491	350	254
7	434	473	397	275
9		494	399	286
10	1541	981	552	462

LAKE 3025 Susp C (ug/L) 1973

DEPTH(m)	DAY #							
	024	052	080	107	127	141	155	159
EPI					790	900	690	
2	399	720	460	450	360	990	720	
3	431	800	410	480	1010	1150	880	
5	520	660	420	500	710	1150	870	
7	511	640	450	450	720	970	1110	
9	975	990	1180	1000	740	910	1140	
10	1495	1740	1140	1110	890	1120	1890	

	169	183	197	211	225	239	253	267
EPI	620	810	990	1190	900	620	850	890
2	500	740	850	860	770	600	930	920
3	540	710	730	1070	740	630	930	890
5	610	770	860	860	1000	900	850	930
7	1050	1190	1750	1800	2050	1760	2460	900
9	2160	2900	3150	4750	3120	2390	2780	2430
10	2620	3190	3030	2570	3170	2600	3190	2720

	281	295	309	353
EPI	730	790	1130	1010
2	730	920	1120	970
3	770	990	1200	710
5	750	1060	970	890
7	740	720	1170	790
9	1780	1310	1270	910
10	2390	1060	1060	2270

LAKE 3025 CH4-C (uM/L) 1973

DEPTH(m)	DAY #							
	024	052	080	107	127	141	155	159
EPI					3	1	1	
2	1	1	1	1	3	1	1	
3	1	1	1	1	3	1	1	
5	1	1	1	1	3	1	1	
7	1	1	1	1	4	1	1	
9	89	50	84	355	13	6	1	
10	330	233	167	373	19	10	1	

	169	183	197	211	225	239	253	267
EPI	1	1	1	1	1	2	1	4
2	1	1	1	1	1	1	1	4
3	1	1	1	1	1	1	1	4
5	1	1	2	1	2	2	1	4
7	1	1	1	1	1	1	32	5
9	34	127	150	179	368	557	523	633
10	71	201	216	347	523	674	695	952

	281	295	309	353
EPI	1	1	1	5
2	2	1	1	1
3	2	1	1	1
5	2	1	1	1
7	4	1	1	1
9	566	1	1	1
10	973	7	1	38

LAKE 3023 Cl (mg/L) 1973

DEPTH(m)	DAY #							
	024	052	080	107	127	141	155	159
EPI					.7	.9	.7	
2	.7	.7	.7	.9	.7	.8	.7	
3	.6	.6	.9	.7	.7	.7	.8	
5	.6	.5	.6	.7	.7	.7	.8	
7	.6	.6	.7	.7	.7	.9	.6	
9	1.6	.6	.7	.7	.7	.8	.9	
10	.6	.5	.7	.3	.9	.9	.7	

	169	183	197	211	225	239	253	267
EPI	.6	.7	1.2	1.4	.8	1.2	1.4	1.0
2	.6	.7	1.2	1.2	.8	1.2	1.2	1.0
3	.7	.7	1.2	5.4	1.0	1.0	1.2	1.0
5	.7	.7	1.0	1.2	1.0	1.2	1.2	1.2
7	.6	.8	1.0	1.0	.9	1.0	2.2	1.2
9	.7	.9	1.0	1.0	1.0	1.6	.8	1.0
10	.7	.9	1.2	1.0	1.0	1.2	1.0	1.0

	281	295	309	353
EPI	1.2	1.0	2.2	1.5
2	1.2	1.0	1.4	1.4
3	1.2	1.0	1.4	1.4
5	1.0	1.0	1.4	1.8
7	1.2	1.0	1.4	1.4
9	1.0	1.0	1.4	1.4
10	1.0	1.0	1.4	1.4

LAKE 3023 SO4 (mg/L) 1973

DEPTH(m)	DAY #							
	024	052	080	107	127	141	155	159
EPI					3.2	3.9	3.7	
2	2.8	2.8	3.8	4.4	3.2	3.9	3.6	
3	2.7	2.6	3.5	4.5	3.2	3.9	3.6	
5	2.6	2.7	3.7	4.5	3.2	3.8	3.6	
7	2.4	2.6	3.5	4.4	3.2	3.7	3.8	
9	2.1	2.2	2.1	2.1	3.2	3.7	2.6	
10	1.4	1.2	2.0	2.4	3.2	3.7	1.7	

	169	183	197	211	225	239	253	267
EPI	4.3	3.8	2.9	3.0	3.4	3.2	3.0	2.9
2	4.3	3.8	2.9	3.0	3.0	3.2	3.0	2.8
3	4.5	3.8	2.9	3.0	3.0	3.2	3.0	3.0
5	4.1	3.7	2.8	3.2	3.0	3.2	3.0	2.9
7	4.3	3.5	2.6	3.5	3.0	3.4	2.4	2.4
9	3.5	2.9	2.2	2.2	1.6	1.8	1.0	1.0
10	3.5	2.7	2.1	1.6	1.2	1.2	1.2	1.0

	281	295	309	353
EPI	3.0	3.0	2.4	3.4
2	2.8	3.0	2.8	3.0
3	3.0	3.0	2.8	3.8
5	2.8	3.0	2.8	3.4
7	2.8	3.0	2.8	3.2
9	1.2	3.0	2.8	3.0
10	1.0	3.0	2.6	2.4

LAKE 302S Na (mg/L) 1973

DEPTH(m)	DAY #							
	024	052	080	107	127	141	155	158
EPI					.73	.75	.77	
2	.77	.73	.67	.70	.64	.72	.70	
3	.68	.66	.63	.70	.65	.81	.68	
5	.65	.66	.66	.70	.69	.72	.75	
7	.77	.69	.67	.74	.67	.70	.79	
9	.77	.70	.69	.72	.63	.72	.75	
10	.79	.69	.69	.69	.66	.70	.77	

	169	183	197	211	225	239	253	267
EPI	.99	.75	.67	.73	.67	.82	.70	.79
2	.91	.72	.67	.73	.70	.74	.71	.70
3	.91	.75	.68	.68	.71	.68	.73	.72
5	.85	.75	.67	.66	.73	.69	.73	.74
7	.96	.78	.69	1.22	.79	.74	.73	.73
9	.92	.81	.71	.75	.74	.85	.73	.74
10	.91	.86	.71	.71	.71	.89	.73	.75

	281	295	309	353
EPI	.76	.62	.69	.77
2	.68	.66	.60	.72
3	.69	.65	.63	.74
5	.72	.66	.61	.75
7	.71	.64	.61	.73
9	.72	.64	.21	.73
10	.74	.64	.52	.71

LAKE 302S K (mg/L) 1973

DEPTH(m)	DAY #							
	024	052	080	107	127	141	155	158
EPI								
2	.41	.46	.39	.40				
3	.40	.42	.38	.40				
5	.39	.42	.40	.40				
7	.42	.46	.41	.43				
9	.47	.50	.43	.50				
10	.51	.53	.45	.49				

	169	183	197	211	225	239	253	267
EPI								
2								
3								
5								
7								
9								
10								

	281	295	309	353
EPI				
2				
3				
5				
7				
9				
10				

LAKE 3025 Ca (mg/L) 1973

DEPTH(m)	DAY #							
	024	052	080	107	127	141	155	158
EPI								
2	1.65	1.76	1.69	1.74				
3	1.76	1.61	1.68	1.71				
5	1.50	1.65	1.77	1.69				
7	1.71	1.72	1.79	1.70				
9	2.13	2.24	3.01	3.77				
10	3.25	3.23	3.01	3.47				

	169	183	197	211	225	239	253	267
EPI								
2								
3								
5								
7								
9								
10								

	281	295	309	353
EPI				
2				
3				
5				
7				
9				
10				

LAKE 3025 Mg (mg/L) 1973

DEPTH(m)	DAY #							
	024	052	080	107	127	141	155	158
EPI								
2	.64	.71	.66	.71				
3	.66	.65	.64	.70				
5	.63	.66	.67	.70				
7	.64	.68	.70	.72				
9	.68	.73	.71	.77				
10	.72	.71	.72	.75				

	169	183	197	211	225	239	253	267
EPI								
2								
3								
5								
7								
9								
10								

	281	295	309	353
EPI				
2				
3				
5				
7				
9				
10				

LAKE 302S SRSi (mg/L) 1973

DEPTH(m)	DAY #							
	024	052	080	107	127	141	155	159
EPI					.365	.242	.054	
2	.210	.210	.272	.369	.359	.233	.074	
3	.245	.290	.300	.374	.350	.231	.076	
5	.510	.205	.445	.373	.369	.244	.161	
7	.785	.615	.765	.549	.357	.345	.267	
9	1.145	.975	1.350	1.660	.394	.463	.552	
10	1.895	1.560	1.530	1.570	.481	.515	.665	

	169	183	197	211	225	239	253	267
EPI	.050	.081	.039	.070	.134	.101	.143	.166
2	.055	.070	.039	.070	.109	.105	.142	.165
3	.120	.064	.039	.070	.142	.104	.147	.162
5	.058	.034	.018	.070	.112	.096	.151	.165
7	.206	.212	.157	.160	.054	.075	.244	.169
9	.656	.823	.780	.740	.842	1.150	1.300	1.340
10	.715	.909	.862	.940	1.130	1.260	1.490	1.570

	281	295	309	353
EPI	.157	.185	.104	.014
2	.167	.187	.105	.115
3	.160	.192	.141	.124
5	.172	.218	.118	.146
7	.207	.205	.113	.155
9	1.280	.213	.110	.374
10	1.800	.242	.119	.944

LAKE 302S Chl-a (ug/L) 1973

DEPTH(m)	DAY #							
	024	052	080	107	127	141	155	159
EPI					6.0	3.9	5.1	
2	4.3	2.0	1.0	5.2	5.4	4.5	4.0	
3	3.3	1.5	.9	3.6	8.6	5.5	4.9	
5	2.4	1.2	.9	4.4	6.2	10.1	4.9	
7	2.8	1.3	1.1	3.6	3.7	9.4	11.8	
9	13.0	13.8	21.8	28.4	5.1	10.6	8.1	
10	28.2	31.0	24.7	24.5	6.0	8.4	9.9	

	169	183	197	211	225	239	253	267
EPI	3.2	2.5	2.9	4.2	2.9	2.6	3.9	4.5
2	3.2	2.8	3.0	4.2	2.8	1.8	3.5	5.1
3	3.0	2.7	2.8	4.2	2.9	2.1	3.5	4.3
5	5.5	5.1	4.9	5.6	6.0	3.3	4.0	4.3
7	10.0	10.8	17.5	28.2	16.2	10.1	13.6	6.2
9	47.7	72.3	100.0	150.0	156.0	96.7	111.0	112.0
10		86.6	124.0	93.9	131.0	89.9	109.0	107.0

	281	295	309	353
EPI	5.7	6.3	12.6	14.1
2	5.3	6.7	11.5	3.8
3	5.4	5.8	12.7	3.8
5	4.1	5.6	11.2	3.2
7	4.8	4.3	12.8	3.4
9	47.1	5.0	10.2	3.2
10	97.9	5.7	10.9	17.3

LAKE 302S Colour (abs425nm) 1973

DEPTH(m)	DAY #							
	024	052	080	107	127	141	155	159
EPI								
2	.062	.058	.056	.052				
3	.058	.066	.052	.053				
5	.054	.053	.052	.050				
7	.059	.054	.060	.062				
9	.154	.116	.193	.390				
10	.492	.439	.251	.387				

	169	193	197	211	225	239	253	267
EPI								
2								
3								
5								
7								
9								
10								

	281	295	309	353
EPI				
2				
3				
5				
7				
9				
10				

Appendix 18

Lake 302 south basin 1974 water chemistry data

LAKE 302S Temp (C) 1974

DEPTH(m)	DAY #							
	023	057	092	114	121	135	143	149
EPI	2.50	2.05	1.38		4.32			
2	3.65	3.95	3.05		4.33			
3	3.90	4.04	3.90		4.38			
5	4.00	4.15	4.20		4.33			
7	4.20	4.28	4.40		4.30			
9	4.85	4.98	4.88		4.91			
10	5.45	5.42	5.18		5.37			

	156	164	171	179	184	192	199	205
EPI	18.42				21.68			
2	17.46				21.68			
3	13.73				20.90			
5	7.84				10.68			
7	5.73				7.72			
9	5.42				6.72			
10	5.37				6.65			

	212	220	225	238	247	253	262	268
EPI	19.99			17.55				11.50
2	19.99			17.47				11.55
3	19.91			17.41				11.60
5	13.95			17.26				11.60
7	9.09			10.25				11.50
9	7.15			7.55				9.15
10	6.98			7.29				7.51

	276	280	289	296	302	308	323	343
EPI				5.92		4.92	2.30	
2				5.92		4.92	2.36	
3				5.92		4.92	2.52	
5				5.92		4.92	3.10	
7				5.92		4.92	3.67	
9				5.92		5.00	3.88	
10				5.92		5.00	4.00	

LAKE 302S Cond (uS/cm) 1974

DEPTH(m)	DAY #							
	023	057	092	114	121	135	143	149
EPI		24	20		20			
2	22	24	22		20			
3	21	23	21		20			
5	21	21	22		21			
7	21	23	23		23			
9	23	23	29		26			
10	57	45	60		56			

	156	164	171	179	184	192	199	205
EPI	19				17			
2	19				17			
3	20				17			
5	21				17			
7	21				20			
9	23				26			
10	25				27			

	212	220	225	238	247	253	262	268
EPI	19			19				20
2	18			18				19
3	18			19				19
5	18			18				19
7	20			23				20
9	20			40				25
10	49			55				79

	276	280	289	296	302	308	323	343
EPI				21		20	21	21
2				21		21	21	20
3				20		20	20	21
5				20		21	20	22
7				19		20	20	22
9				20		21	21	25
10				21		22	23	32

LAKE 302S pH 1974

DEPTH(m)	DAY #							
	023	057	092	114	121	135	143	149
EPI		6.12	5.99		5.74			
2	6.14	5.94	5.85		5.75			
3	5.98	5.90	5.84		5.67			
5	5.96	5.81	5.87		5.69			
7	5.82	5.81	5.78		5.69			
9	5.81	5.81	6.06		5.76			
10	6.50	6.25	6.37		6.16			

	156	164	171	179	184	192	199	205
EPI	6.79				6.69			
2	6.85				6.67			
3	6.33				6.52			
5	6.05				6.58			
7	5.85				5.95			
9	5.76				5.98			
10	5.77				6.00			

	212	220	225	239	247	253	262	269
EPI	6.48			6.50				6.56
2	6.54			6.50				6.53
3	6.56			6.54				6.55
5	6.52			6.58				6.58
7	5.96			6.19				6.57
9	5.75			6.21				6.35
10	6.12			6.43				6.70

	276	280	289	295	302	309	323	343
EPI				6.54		6.66	6.59	6.52
2				6.52		6.62	6.58	6.56
3				6.53		6.65	6.54	6.56
5				6.60		6.68	6.53	6.43
7				6.59		6.76	6.47	6.20
9				6.62		6.78	6.35	6.17
10				6.65		6.81	6.23	6.22

LAKE 302S O2 (mg/L) 1974

DEPTH(m)	DAY #							
	023	057	092	114	121	135	143	149
EPI		8.05	5.15					
2	8.30	5.75	4.83		4.82			
3	6.90	5.20	4.50		4.82			
5	6.65	5.05	3.60		4.12			
7	4.32	4.15	1.00		3.65			
9	.80	2.65	< .01		< .01			
10	< .01	< .01	< .01		< .01			

	156	164	171	179	184	192	199	205
EPI	9.32				8.15			
2	9.70				8.22			
3	10.90				8.75			
5	8.80				11.44			
7	5.62				3.90			
9	2.50				.22			
10	< .01				< .01			

	212	220	225	239	247	253	262	269
EPI	8.40			8.72				9.14
2	8.39			8.90				9.15
3	8.44			8.91				9.11
5	11.82			8.94				9.11
7	3.94			1.95				9.30
9	< .01			< .01				2.89
10	< .01			< .01				< .01

	276	280	289	296	302	309	323	343
EPI				9.93		11.00	12.40	13.20
2				10.40		10.71	12.22	12.61
3				9.02		10.60	11.90	11.60
5				9.65		10.95	11.42	10.20
7				10.50		10.60	10.40	5.90
9				9.95		10.91	8.79	2.80
10				10.26		10.50	6.90	.15

LAKE 302S NH3-N (ug/L) 1974

DEPTH(m)	DAY #							
	023	057	092	114	121	135	143	149
EPI		40	3		32			
2	79	10	8		30			
3	42	12	13		30			
5	33	20	16		30			
7	44	15	61		37			
9	235	74	555		374			
10	1116	998	1624		1333			

	156	164	171	179	184	192	199	205
EPI	11				5			
2	7				5			
3	16				8			
5	14				8			
7	41				117			
9	154				620			
10	624				732			

	212	220	225	235	247	253	252	269
EPI	15			12				6
2	18			10				14
3	12			10				15
5	20			10				16
7	20			17				25
9	559			902				742
10	1233			1255				1509

	276	280	289	296	302	308	323	343
EPI				4		31	23	20
2				13		23	35	39
3				15		19	25	45
5				15		24	37	65
7				19		27	59	103
9				21		30	115	397
10				10		29	215	667

LAKE 302S NO3-N (ug/L) 1974

DEPTH(m)	DAY #							
	023	057	092	114	121	135	143	149
EPI		152	156		185			
2	110	198	211		185			
3	152	210	221		253			
5	157	221	216		204			
7	214	226	205		200			
9	142	216	29		35			
10	12	46	35		16			

	156	164	171	179	184	192	199	205
EPI	35				1			
2	35				1			
3	50				1			
5	86				28			
7	88				62			
9	79				1			
10	27				1			

	212	220	225	233	247	253	252	269
EPI	1			9				1
2	1			8				1
3	1			7				3
5	1			7				3
7	1			9				3
9	1			15				24
10	13			13				24

	276	280	289	296	302	308	323	343
EPI				3		17	3	3
2				5		14	3	4
3				5		14	3	3
5				5		15	6	9
7				5		16	7	25
9				5		14	9	31
10				5		16	9	3

LAKE 302S TDN (ug/L.) 1974

DEPTH(m)	DAY #							
	023	057	092	114	121	135	143	149
EPI		268	304		324			
2	333	354	370		355			
3	313	333	344		389			
5		390	373		338			
7	364	323	311		219			
9	610	361	653		659			
10	1469	1060	1812		1273			

	156	164	171	179	184	192	199	205
EPI	235				199			
2	211				216			
3	224				210			
5	256				243			
7	230				401			
9	413				932			
10	800				1084			

	212	220	225	239	247	253	262	269
EPI	229			265				224
2	248			216				243
3	263			229				241
5	239			277				249
7	269			285				219
9	897			1409				1102
10	1783			1812				1954

	276	280	289	296	302	309	323	343
EPI				227		253	243	293
2				212		240	247	244
3				199		236	247	257
5				205		253	243	293
7				196		257	255	344
9				199		278	322	679
10				205		236	427	936

LAKE 302S Susp N (ug/L.) 1974

DEPTH(m)	DAY #							
	023	057	092	114	121	135	143	149
EPI		80	57		34			
2	97	42	76		34			
3	81	49	61		62			
5	67	49	53		46			
7	45	87	61		21			
9	145	84	256		123			
10	305	232	262		230			

	156	164	171	179	184	192	199	205
EPI	43				84			
2	35				81			
3	35				133			
5	77				105			
7	81				153			
9	104				399			
10	688				399			

	212	220	225	238	247	253	262	269
EPI	105			121				121
2	91			125				
3	109			149				125
5	147			131				93
7	284			193				93
9	235			345				297
10	375			374				377

	276	280	289	296	302	309	323	343
EPI				122		135	135	135
2				100		135	132	129
3				104		107	115	136
5				100		104	107	100
7				140		100	115	103
9				125		97	158	140
10				129		111	209	304

LAKE 302S TDP (ug/L.) 1974

DEPTH(m) DAY #

	023	057	092	114	121	135	143	149
EPI		5	3		4			
2	4	6	4		3			
3	5	5	4		5			
5	5	5	4		4			
7	4	5	3		5			
9	5	4	5		5			
10	7	7	9		8			

	156	164	171	179	134	192	199	205
EPI	4				3			
2	4				3			
3	5				3			
5	4				3			
7	4				5			
9	5				6			
10	7				7			

	212	220	225	238	247	253	262	268
EPI	3			3				3
2	3			3				3
3	3			3				4
5	3			4				4
7	3			5				3
9	8			9				5
10	9			10				9

	276	280	289	295	302	308	323	343
EPI				4		4	5	5
2				4		5	5	4
3				4		4	5	4
5				4		4	5	4
7				4		4	5	4
9				4		5	6	5
10				4		4	7	6

LAKE 302S Susp P (ug/L.) 1974

DEPTH(m) DAY #

	023	057	092	114	121	135	143	149
EPI		6	7		7			
2	10	5	11		7			
3	7	4	4		9			
5	8	4	6		5			
7	7	5	10		10			
9	27	10	43		29			
10		45	57		51			

	156	164	171	179	184	192	199	205
EPI	4				5			
2	5				5			
3	6				5			
5	7				6			
7	10				13			
9	11				45			
10	105				51			

	212	220	225	238	247	253	252	269
EPI	5			6				4
2	5			5				5
3	6			5				4
5	4			6				4
7	21			14				5
9	49			46				31
10	55			49				44

	276	290	289	296	302	308	323	343
EPI				5		5	5	5
2				5		6	6	5
3				5		5	6	5
5				5		6	6	5
7				7		5	5	7
9				6		7	9	14
10				7		7	16	35

LAKE 302S DIC (uM/L) 1974

DEPTH(m)	DAY #							
	023	057	092	114	121	135	143	149
EPI		194	388		320			
2	217	220	224		318			
3	245	231	253		316			
5	254	247	277		362			
7	330	268	326		345			
9	474	310	477		609			
10	933	714	939		1093			

	156	164	171	179	184	192	199	205
EPI	71				57			
2	64				56			
3	83				73			
5	173				87			
7	258				312			
9	375				568			
10	513				572			

	212	220	225	233	247	253	262	269
EPI	55			75				103
2	57			73				109
3	59			55				100
5	76			67				96
7	312			391				95
9	472			775				408
10	817			942				1130

	275	280	287	296	302	308	323	343
EPI				117		110	102	103
2				118		117	109	120
3				115		103	109	117
5				109		107	115	130
7				100		95	137	241
9				106		97	173	457
10				103		109	240	444

LAKE 302S DOC (uM/L) 1974

DEPTH(m)	DAY #							
	023	057	092	114	121	135	143	149
EPI		501	452		454			
2	395	333	475		477			
3	371	389	426		506			
5	345	410	441		432			
7	322	387	457		506			
9	432	373	500		460			
10	612	525	896		632			

	156	164	171	179	184	192	199	205
EPI	445				438			
2	424				466			
3					467			
5					435			
7	358				383			
9	370				429			
10	422				443			

	212	220	225	239	247	253	262	268
EPI	158			354				347
2	289			332				327
3	243			355				344
5	275			373				330
7	310			397				329
9	326			609				502
10	502			544				547

	276	290	289	295	302	303	323	343
EPI				369		336	359	371
2				361		296	428	352
3				305		326	423	363
5				432		278	402	397
7				397		304	355	303
9				339		271	377	365
10				395		381	395	337

LAKE 302S Susp C (ug/l.) 1974

DEPTH(m)	DAY #							
	023	057	092	114	121	135	143	149
EPI		630	360		460			
2	1570	330	540		390			
3	330	340	530		540			
5	750	350	400		390			
7	350	710	590		450			
9	1240	760	1800		1640			
10	1940	1420	1650		2040			

	156	164	171	179	184	192	199	205
EPI	600				890			
2	530				810			
3	620				940			
5	860				930			
7	890				1440			
9	930				2820			
10	6060				3050			

	212	220	225	239	247	253	262	268
EPI	820			920				870
2	780			940				
3	870			940				730
5	1170			970				790
7	3020			1490				960
9	1890			2180				1340
10	2390			2300				2610

	276	280	289	295	302	308	323	343
EPI				930		920	1000	1010
2				990		920	950	840
3				760		930	930	930
5				830		900	890	700
7				1170		930	950	940
9				910		820	1200	1000
10				830		820	1740	2530

LAKE 302S CH4-C (uM/L) 1974

DEPTH(m)	DAY #							
	023	057	092	114	121	135	143	149
EPI		82	50		1			
2	1	5	3		1			
3	1	1	2		1			
5	1	1	1		1			
7	1	1	1		1			
9	5	1	1		23			
10	159	158	259		263			

	156	164	171	179	184	192	199	205
EPI	1				1			
2	1				1			
3	1				1			
5	1				1			
7	1				1			
9	1				90			
10	18				110			

	212	220	225	239	247	253	262	268
EPI	1			1				5
2	1			1				6
3	1			1				5
5	1			1				6
7	1			1				8
9	17			259				118
10	290			389				701

	276	280	289	295	302	308	323	343
EPI							1	1
2							1	1
3							1	1
5							1	1
7							4	1
9							8	1
10							15	22

LAKE 302S Cl (mg/L.) 1974

DEPTH(m)	DAY #							
	023	057	092	114	121	135	143	149
EPI		1.8	1.4		1.4			
2	1.8	1.6	1.4		1.6			
3	1.6	1.6	1.4		1.8			
5	1.6	1.4	1.4		1.4			
7	1.6	1.4	1.4		1.4			
9	1.4	1.4	1.6		1.6			
10	1.4	1.4	1.4		1.4			

DEPTH(m)	DAY #							
	156	164	171	179	184	192	199	205
EPI	1.4				1.3			
2	1.4				1.4			
3	1.4				1.2			
5	1.4				1.2			
7	1.2				1.3			
9	1.4				1.6			
10	1.6				1.2			

DEPTH(m)	DAY #							
	212	220	225	239	247	253	262	269
EPI	1.2			1.2				1.4
2	1.2			1.2				1.8
3	1.2			1.2				1.6
5	1.2			1.2				1.6
7	1.2			1.2				1.4
9	1.2			1.0				1.4
10	1.2			1.0				1.2

DEPTH(m)	DAY #							
	275	290	289	296	302	309	323	343
EPI				1.0		1.6	1.4	1.4
2				1.6		1.6	1.8	2.2
3				1.4		1.4	1.4	1.4
5				1.4		1.4	1.6	3.0
7				1.4		1.6	1.4	1.2
9				1.4		1.2	1.4	1.2
10				1.2		1.4	1.3	2.4

LAKE 302S SO4 (mg/L.) 1974

DEPTH(m)	DAY #							
	023	057	092	114	121	135	143	149
EPI		3.8	3.0		2.9			
2	3.2	3.4	3.2		2.8			
3	3.0	4.0	3.4		2.8			
5	3.0	3.4	3.2		3.2			
7	2.8	3.4	3.0		3.2			
9	2.6	3.2	2.4		2.6			
10	1.4	2.2	1.8		1.9			

DEPTH(m)	DAY #							
	156	164	171	179	194	192	199	205
EPI	3.2				3.3			
2	3.4				3.2			
3	3.2				3.2			
5	3.2				4.2			
7	3.2				3.0			
9	3.0				2.7			
10	2.8				2.4			

DEPTH(m)	DAY #							
	212	220	225	239	247	253	262	269
EPI	3.2			3.6				2.9
2	3.2			3.6				2.8
3	3.2			3.6				4.0
5	3.0			3.6				3.0
7	2.8			3.0				2.9
9	2.8			1.8				1.6
10	2.2			1.4				1.0

DEPTH(m)	DAY #							
	276	290	289	295	302	309	323	343
EPI				3.4		3.6	3.0	2.6
2				3.6		3.2	3.0	5.6
3				3.0		3.2	3.0	3.2
5				3.0		3.2	3.0	6.8
7				3.0		4.4	3.0	2.6
9				3.0		3.2	3.4	2.8
10				3.0		3.0	3.0	2.2

LAKE 302S H2S-S (mg/L.) 1974

DEPTH(m)	DAY #							
	023	057	092	114	121	135	143	149
EPI								
2								
3								
5								
7								
9								
10								

DEPTH(m)	DAY #							
	156	164	171	179	184	192	199	205
EPI								
2								
3								
5								
7	.06							
9	.06				.06			
10	.05				.06			

DEPTH(m)	DAY #							
	212	220	225	239	247	253	262	269
EPI								
2								
3								
5								.06
7	.06							.06
9	.06							.06
10	.38							.13

DEPTH(m)	DAY #							
	275	280	289	295	302	308	323	343
EPI								
2								
3								.01
5				.02				.01
7				.02		.02	.02	.01
9				.02		.02	.02	.01
10				.02		.02	.02	.01

LAKE 302S Na (mg/L.) 1974

DEPTH(m)	DAY #							
	023	057	092	114	121	135	143	149
EPI		.82	.65		.81			
2	.79	.74	.68		.72			
3	.74	.70	.67		.70			
5	.77	.70	.71		.73			
7	.73	.72	.73		.78			
9	.75	.68	.76		.86			
10	.71	.71	.71		.76			

DEPTH(m)	DAY #							
	156	164	171	179	184	192	199	205
EPI	.81				.76			
2	.75				.80			
3	.85				.23			
5	.80				.78			
7	.74				.79			
9	.75				.77			
10	.85				.79			

DEPTH(m)	DAY #							
	212	220	225	239	247	253	262	269
EPI	.67			.71				.79
2	.74			.69				.91
3	.73			.80				.90
5	.68			.81				.86
7	.69			.69				.73
9	.69			.73				.82
10	.68			.74				.76

DEPTH(m)	DAY #							
	276	280	289	296	302	303	323	343
EPI				.71		.71	.75	.85
2				.79		.74	.78	.85
3				.71		.70	.79	.75
5				.72		.74	.74	.73
7				.76		.79	.71	.73
9				.73		.72	.77	.73
10				.73		.73	.77	.74

LAKE 302S K (mg/L.) 1974

DEPTH(m)	DAY #							
	023	057	092	114	121	135	143	149
EPI					.43			
2					.33			
3					.41			
5					.43			
7					.40			
9					.41			
10					.50			

	156	164	171	179	184	192	199	205
EPI	.35				.48			
2	.35				.50			
3	.36				.48			
5	.36				.50			
7	.39				.54			
9	.39				.59			
10	.44				.61			

	212	220	225	238	247	253	262	269
EPI	.42			.31				.42
2	.42			.34				.40
3	.41			.31				.41
5	.40			.31				.39
7	.47			.35				.41
9	.50			.41				.57
10	.56			.44				.62

	276	290	289	296	302	309	323	343
EPI				.44		.30	.31	.34
2				.45		.30	.31	.33
3				.42		.30	.32	.32
5				.41		.30	.31	.33
7				.43		.30	.31	.32
9				.42		.29	.32	.35
10				.41		.32	.33	.36

LAKE 302S Ca (mg/L) 1974

DEPTH(m)	DAY #							
	023	057	092	114	121	135	143	149
EPI					1.51			
2					1.51			
3					1.54			
5					1.64			
7					1.67			
9					1.87			
10					4.33			

	156	164	171	179	184	192	199	205
EPI	1.59				1.53			
2	1.60				1.54			
3	1.60				1.58			
5	1.70				1.64			
7	1.68				1.73			
9	1.78				2.25			
10	2.25				2.43			

	212	220	225	238	247	253	262	269
EPI	1.59			1.58				1.65
2	1.58			1.54				1.60
3	1.59			1.55				1.64
5	1.58			1.59				1.61
7	1.69			1.61				1.63
9	2.30			3.78				3.52
10	3.35			4.11				5.10

	276	290	289	296	302	309	323	343
EPI				1.58		1.66	1.68	1.75
2				1.57		1.69	1.71	1.69
3				1.57		1.69	1.67	1.63
5				1.55		1.72	1.69	1.69
7				1.59		1.68	1.67	1.73
9				1.62		1.69	1.71	1.91
10				1.60		1.69	1.90	2.37

LAKE 302S Mg (mg/L.) 1974

DEPTH(m)	DAY #							
	023	057	092	114	121	135	143	149
EPI					.57			
2					.57			
3					.58			
5					.63			
7					.63			
9					.63			
10					.68			

	156	164	171	179	194	192	199	205
EPI	.54				.53			
2	.54				.53			
3	.54				.54			
5	.54				.54			
7	.53				.56			
9	.54				.57			
10	.57				.57			

	212	220	225	239	247	253	262	268
EPI	.64			.58				.59
2	.63			.58				.59
3	.64			.58				.60
5	.62			.58				.59
7	.66			.65				.58
9	.69			.65				.65
10	.67			.67				.69

	276	290	289	296	302	308	323	343
EPI				.61		.59	.60	.53
2				.61		.59	.60	.61
3				.62		.60	.60	.61
5				.61		.60	.60	.59
7				.62		.59	.59	.61
9				.63		.59	.60	.65
10				.61		.60	.62	.71

LAKE 302S Fe (mg/L.) 1974

DEPTH(m)	DAY #							
	023	057	092	114	121	135	143	149
EPI					.04			
2					.04			
3					.02			
5					.04			
7					.03			
9					.78			
10					5.70			

	156	164	171	179	194	192	199	205
EPI	.08				.01			
2	.07				.01			
3	.08				.01			
5	.07				.01			
7	.13				.07			
9	.25				.51			
10	.60				.91			

	212	220	225	239	247	253	262	268
EPI	.04			.04				.01
2	.05			.03				.01
3	.05			.02				.02
5	.06			.02				.02
7	.26			.29				.02
9	.75			6.43				3.55
10	6.39			7.70				11.50

	276	290	289	296	302	308	323	343
EPI				.02		.04	.02	.01
2				.03		.03	.03	.01
3				.03		.02	.03	.01
5				.02		.03	.02	.01
7				.02		.02	.02	.01
9				.03		.02	.04	.18
10				.04		.01	.05	.40

LAKE 3023 SRSi (mg/L) 1974

DEPTH(m)	DAY #							
	023	057	092	114	121	135	143	149
EPI		.141	.122		.375			
2	.129	.217	.280		.392			
3	.169	.246	.252		.255			
5	.195	.270	.306		.332			
7	.353	.317	.525		.443			
9	.650	.421	.875		.787			
10	1.390	1.170	1.580		1.390			

	156	164	171	179	184	192	199	205
EPI	.121				.016			
2	.129				.017			
3	.120				.026			
5	.170				.011			
7	.213				.021			
9	.456				.613			
10	.850				.679			

	212	220	225	238	247	253	262	268
EPI	.037			.120				.158
2	.045			.123				.146
3	.042			.119				.163
5	.039			.117				.151
7	.085			.291				.148
9	.485			.789				.805
10	.795			.928				1.130

	276	280	289	296	302	308	323	343
EPI				.155		.114	.065	.033
2				.150		.121	.036	.037
3				.153		.122	.063	.049
5				.157		.131	.070	.116
7				.163		.123	.113	.297
9				.163		.120	.181	.639
10				.167		.139	.335	.917

LAKE 3023 Chl-a (ug/L) 1974

DEPTH(m)	DAY #							
	023	057	092	114	121	135	143	149
EPI		1.3	1.0	1.0	1.3	4.0	2.5	4.9
2	2.4	1.1	.9	1.1	1.3			
3	1.8	.8	.7	1.2	2.6			
5	1.8	.8	.7	2.1	1.7			
7	1.4	.7	1.2		1.4			
9	9.0		16.0		5.3			
10	23.2		16.7		18.5			

	156	164	171	179	184	192	199	205
EPI	2.9	4.0	2.5	2.5	9.2	3.2	2.9	2.5
2	2.9				3.3			
3	3.3				3.4			
5	6.6				7.6			
7	10.9				15.1			
9	11.9				41.2			
10	81.2				52.9			

	212	220	225	238	247	253	262	268
EPI	3.2	2.2	3.0	7.4	8.2	6.8	4.6	5.3
2	2.8			7.8				5.3
3	2.9			7.9				3.9
5	5.0			8.6				4.1
7	50.4			7.8				4.3
9	114.0			94.9				90.2
10	90.1			101.0				141.1

	276	280	289	296	302	308	323	343
EPI	5.6	7.1	7.5	6.4	11.9	9.5	5.7	5.5
2				5.8		9.8	6.6	7.9
3				6.4		7.9	8.3	7.2
5				6.1		6.7	7.2	4.9
7				6.2		8.9	6.9	4.0
9				6.4		9.6	7.2	4.4
10				6.6		8.9	12.1	29.3

Appendix 19

Lake 302 south basin 1975 water chemistry data

LAKE 302S Temp (C) 1975

DEPTH(m)	DAY #							
	021	063	092	134	148	162	176	190
EPI				12.06	18.60	16.64	22.00	22.32
2					17.96		21.58	
3								
4					10.15		17.09	
5								
6					6.96		10.12	
7								
9					5.91		6.91	
10					5.85		6.63	

	204	218	232	246	260	274	288	302
EPI	23.05	21.92	19.26	17.61	14.03	12.11	10.46	6.85
2	23.11		19.26		14.05		10.74	
3								
4	21.00		19.20		14.05		10.74	
5								
6	11.31		15.07		13.98		10.74	
7								
9	7.31		7.79		8.15		10.72	
10	7.04		7.28		7.69			

	316
EPI	4.99
2	5.10
3	
4	4.98
5	
6	4.95
7	
9	4.79
10	4.79

LAKE 302S Cond (uS/cm) 1975

DEPTH(m)	DAY #							
	021	063	092	134	148	162	176	190
EPI		23	20	25		18		18
2		21	19		17		17	
3		22	20					
4					18		17	
5		22	21					
6					19		18	
7		22	22					
9		48	52		23		23	
10		78	71		24		26	

	204	218	232	246	260	274	288	302
EPI		18		18		19		19
2	18		19		19		19	
3								
4	18		18		19		19	
5								
6	19		20		19		19	
7								
9	35		41		63		19	
10	37		88		103			

	316
EPI	
2	19
3	
4	19
5	
6	19
7	
9	19
10	19

LAKE 302S pH 1975

DEPTH(m)	DAY #							
	021	063	092	134	148	162	176	190
EPI		6.39	6.22	6.41		6.63		6.42
2		6.21	6.08		6.75		6.54	
3		6.03	5.99					
4					6.22		6.53	
5		5.91	5.87					
6					6.05		6.34	
7		5.93	5.83					
9		6.57	6.47		6.03		5.91	
10		6.67	6.60		6.10		6.01	

DEPTH(m)	DAY #							
	204	218	232	246	260	274	288	302
EPI		6.67		6.33		6.33		6.30
2	6.64		6.53		6.49		6.38	
3								
4	6.57		6.62		6.45		6.33	
5								
6	6.31		6.21		6.42		6.41	
7								
9	6.14		6.29		6.48		6.32	
10	6.24		6.71		6.67			

DEPTH(m)	DAY #
	316
EPI	
2	6.29
3	
4	6.31
5	
6	6.25
7	
9	6.25
10	6.19

LAKE 302S O2 (mg/L) 1975

DEPTH(m)	DAY #							
	021	063	092	134	148	162	176	190
EPI		11.60	10.65					
2		12.10	10.49		8.69		8.31	
3		5.00	7.86					
4					7.91		9.89	
5		5.92	4.40					
6					6.29		10.09	
7		4.21	1.35					
9		1.95	< .01		2.24		< .01	
10		< .01	< .01		1.40		< .01	

DEPTH(m)	DAY #							
	204	218	232	246	260	274	288	302
EPI								
2	7.62		8.40		9.14		9.70	
3								
4	9.54		8.37		9.10		9.77	
5								
6	9.76		6.74		8.90		9.72	
7								
9	< .01		< .01		< .01		9.70	
10	< .01		< .01		< .01			

DEPTH(m)	DAY #
	316
EPI	
2	11.90
3	
4	12.40
5	
6	11.70
7	
9	12.04
10	11.72

LAKE 302S NH3-N (ug/L) 1975

DEPTH(m) DAY #

	021	063	092	134	148	162	176	190
EPI		23	41	11	3	7	4	2
2		32	38		3		8	
3		8	34					
4					5		11	
5		13	39					
6					28		8	
7		19	64					
9		870	908		323		453	
10		1712	1534		384		540	

	204	218	232	246	260	274	288	302
EPI	3	3	2	3	3	8	15	6
2	3		2		4		22	
3								
4	2		2		3		8	
5								
6	3		2		3		8	
7								
9	867		1160		1070		6	
10	897		1970		1840			

	316
EPI	4
2	3
3	
4	3
5	
6	3
7	
9	3
10	3

LAKE 302S NO3-N (ug/L) 1975

DEPTH(m) DAY #

	021	063	092	134	148	152	176	190
EPI		14	17	100	28	3	7	1
2		50	59		32		7	
3		109	147					
4					65		8	
5		184	193					
6					75		7	
7		214	180					
9		9	13		52		8	
10		6	5		42		7	

	204	218	232	246	260	274	288	302
EPI	1	1	1	8	3	5	1	4
2	1		1		3		1	
3								
4	1		1		1		1	
5								
6	1		1		1		1	
7								
9	8		6		6		1	
10	10		11		10			

	316
EPI	3
2	2
3	
4	3
5	
6	3
7	
9	2
10	3

LAKE 302S TDN (ug/L) 1975

DEPTH(m)	DAY #							
	021	063	092	134	148	162	176	190
EPI		276	294	329	239	205	206	192
2		305	301		275		154	
3		314	386					
4					286		182	
5		430	403					
6					322		192	
7		436	410					
9		1216	1280		569		629	
10		2194	2170		698		758	

	204	218	232	246	260	274	288	302
EPI	192	183	178	195	156	236	170	231
2	172		199		162		170	
3								
4	169		206		156		147	
5								
6	227		229		172		170	
7								
9	1020		1510		1355		167	
10	1250		2860		2710			

	316
EPI	166
2	175
3	
4	166
5	
6	175
7	
9	159
10	194

LAKE 302S Susp N (ug/L) 1975

DEPTH(m)	DAY #							
	021	063	092	134	148	162	175	190
EPI		46	59	116	96	82	84	75
2		52	46		128		66	
3		52	48					
4					98		91	
5		71	59					
6					103		148	
7		109	90					
9		249	260		107		196	
10		392	251		87		230	

	204	218	232	246	260	274	289	302
EPI	43	66	70	83	80	75	109	103
2	48		55		58		100	
3								
4	46		25		75		103	
5								
6	114		125		68		96	
7								
9	290		285		428		90	
10	280		380		420			

	316
EPI	164
2	143
3	
4	116
5	
6	140
7	
9	151
10	164

LAKE 302S TDP (ug/L) 1975

DEPTH(m)	DAY #							
	021	063	092	134	148	162	176	190
EPI		A	A	A	A	2	2	2
2		A	3		A		2	
3		A	6					
A					A		2	
5		A	A					
6					5		2	
7		A	3					
9		6	6		6		3	
10		7	6		6		3	

	204	218	232	246	260	274	288	302
EPI	3	2	2		3	3	A	6
2	3		2		2		A	
3								
A	2		3		2		3	
5								
6	3		3		2		3	
7								
9	7		6		7		A	
10	7		9		9			

	316
EPI	2
2	2
3	
A	3
5	
6	3
7	
9	3
10	2

LAKE 302S Susp P (ug/L) 1975

DEPTH(m)	DAY #							
	021	063	092	134	148	162	176	190
EPI		A	3	9	6	6	6	5
2		A	3		A		3	
3		A	A					
A					5		A	
5		5	5					
6					7		10	
7		6	6					
9		35	36		6		26	
10		46	42		8		34	

	204	218	232	246	260	274	288	302
EPI	3	A	5	19	5	6	5	7
2	3		A		A		5	
3								
A	A		A		A		5	
5								
6	12		10		A		A	
7								
9	A1		50		A5		5	
10	A5		69		51			

	316
EPI	5
2	7
3	
A	8
5	
6	5
7	
9	7
10	6

LAKE 302S DIC (uM/L) 1975

DEPTH(m)	DAY #							
	021	063	092	134	148	162	176	190
EPI		163	124	108		59		50
2		206	173		52		53	
3		229	245					
4					153		65	
5		388	322					
6					209		137	
7		403						
9		787	777		349		454	
10		1358	1040		390		501	

	204	218	232	246	260	274	288	302
EPI		46		59		75		68
2	47		60		74		74	
3								
4	62		57		83		83	
5								
6	167		220		94		84	
7								
9	689		751		992		74	
10	713		1160		1366			

	316
EPI	
2	69
3	
4	68
5	
6	68
7	
9	64
10	66

LAKE 302S DOC (uM/L) 1975

DEPTH(m)	DAY #							
	021	063	092	134	148	162	176	190
EPI		505	488	454	406	383	466	422
2		475	454		413		461	
3		480	463					
4					398		416	
5		440	423					
6					398		449	
7		460	388					
9		650	563		399		677	
10		800	725		410		542	

	204	218	232	246	260	274	288	302
EPI	386	427	439	472	436	419	415	451
2	494		473		421		416	
3								
4	438		476		418		383	
5								
6	525		551		438		409	
7								
9	588		689		704		441	
10	626		891		1160			

	316
EPI	391
2	396
3	
4	391
5	
6	389
7	
9	383
10	392

LAKE 302S Susp C (ug/L) 1975

DEPTH(m)	DAY #							
	021	063	092	134	148	162	176	190
EPI		590	510	1020	860	700	810	900
2		460	380		780		710	
3		530	450					
4					870		880	
5		540	530					
6					1040		1480	
7		710	560					
9		1710	1620		1050		1650	
10		2340	1740		880		1900	

DEPTH(m)	DAY #							
	204	218	232	246	260	274	288	302
EPI	320	850	800	540	690	780	950	930
2	690		840		580		1010	
3								
4	390		150		710		900	
5								
6	1690		1820		680		810	
7								
9	2070		2640		2950		840	
10	2450		3370		2970			

DEPTH(m)	DAY #
	316
EPI	1290
2	1170
3	
4	1140
5	
6	1120
7	
9	1120
10	1100

LAKE 302S CHN-C (uN/L) 1975

DEPTH(m)	DAY #							
	021	063	092	134	148	162	176	190
EPI		31						
2		1						
3		1						
4								
5		1						
6								
7		1						
9		161						
10		542						

LAKE 302S Cl (mg/L) 1975

DEPTH(m)	DAY #							
	021	063	092	134	148	162	176	190
EPI		1.6	1.4					
2		1.4	1.6					
3		1.4	1.4					
4								
5		2.0	1.4					
6								
7		1.2	1.8					
9		1.4	1.6					
10		1.4	1.4					

LAKE 302S SO4 (mg/L) 1975

DEPTH(m) DAY #

	021	063	092	134	148	162	176	190
EPI		3.6	3.4					
2		3.4	3.4					
3		3.2	3.2					
4								
5		3.8	3.2					
6								
7		3.4	3.0					
9		1.8	1.2					
10		1.2	.8					

LAKE 302S H2S-S (mg/L) 1975

DEPTH(m) DAY #

	021	063	092	134	148	162	176	190
EPI								
2								
3								
4								
5		.01						
6								
7		.01	.01					
9		.17	.13					
10		.31	.16					

LAKE 302S Na (mg/L) 1975

DEPTH(m) DAY #

	021	063	092	134	148	162	176	190
EPI		.85	.71					
2		.82	.75		.68		.65	
3		.81	.72					
4					.69		.68	
5		.82	.73					
6					.70		.71	
7		.84	.71					
9		.89	.70		.72		.69	
10		.85	.71		.71		.70	

	204	218	232	246	260	274	288	302
EPI								
2	.75		.72		.72		.66	
3								
4	.75		.74		.72		.66	
5								
6	.77		.71		.72		.64	
7								
9	.73		.72		.90		.64	
10	.71		.72		.99			

	316
EPI	
2	.66
3	
4	.68
5	
6	.68
7	
9	.66
10	.68

LAKE 3025 K (mg/L) 1975

DEPTH(m)	DAY #							
	021	063	092	134	148	162	176	190
EPI		.36	.41					
2		.35	.37					
3		.35	.42					
4								
5		.35	.37					
6								
7		.34	.37					
9		.49	.43					
10		.56	.47					

LAKE 3025 Mg (mg/L) 1975

DEPTH(m)	DAY #							
	021	063	092	134	148	162	176	190
EPI		.62	.62					
2		.59	.59					
3		.59	.60					
4								
5		.61	.61					
6								
7		.61	.63					
9		.60	.61					
10		.70	.69					

LAKE 3025 Ca (mg/L) 1975

DEPTH(m)	DAY #							
	021	063	092	134	148	152	176	190
EPI		1.78	1.76					
2		1.74	1.69					
3		1.69	1.70					
4								
5		1.77	1.70					
6								
7		1.74	1.79					
9		3.20	3.64					
10		4.80	4.86					

LAKE 3025 Fe (mg/L) 1975

DEPTH(m)	DAY #							
	021	063	092	134	148	162	176	190
EPI		.02	.01					
2		.02	.01					
3		.02	.03					
4								
5		.06	.10					
6								
7		.15	.19					
9		5.10	6.02					
10		9.10	9.41					

LAKE 302S SRSi (mg/L) 1975

DEPTH(m)	DAY #							
	021	063	092	134	148	162	176	190
EPI		.026	.040	.417	.394	.340	.290	.330
2		.070	.080		.387		.340	
3		.151	.240					
4					.407		.310	
5		.385	.430					
6					.452		.350	
7		.503	.610					
9		1.310	1.310		.770		.850	
10		1.890	1.770		.836		.940	

	204	218	232	246	260	274	288	302
EPI	.301	.278	.243	.239	.269	.298	.289	.291
2	.309		.248		.271		.299	
3								
4	.338		.244		.273		.296	
5								
6	.439		.437		.287		.296	
7								
9	1.060		1.270		1.260		.292	
10	1.070		1.590		1.750			

	316
EPI	.255
2	.248
3	
4	.246
5	
6	.247
7	
9	.252
10	.260

LAKE 302S Chl-a (ug/L) 1975

DEPTH(m)	DAY #							
	021	063	092	134	148	162	176	190
EPI		1.5	3.2	3.0	3.4	2.5	2.4	2.7
2		1.4	1.2		2.4		2.8	
3		1.1	1.1					
4					2.7		3.3	
5		1.0	.8					
6					5.5		6.7	
7		1.3	1.0					
9		21.5	17.3		6.0		29.5	
10		14.9	12.4		4.9		50.0	

	204	218	232	246	260	274	288	302
EPI	2.5	2.9	3.4	16.1	4.1	3.6	6.5	7.5
2	2.4		3.2		3.5		7.1	
3								
4	3.1		3.1		4.0		6.1	
5								
6	8.3		11.0		4.7		4.9	
7								
9	62.2		96.5		96.2		5.0	
10	70.5		105.0		130.0			

	316
EPI	13.3
2	8.8
3	
4	7.8
5	
6	7.4
7	
9	8.4
10	8.0

Appendix 20

Lake 302 south basin 1976 water chemistry data

LAKE 302S Temp (C) 1976

DEPTH(m) DAY #

	009	099	119	126	140	154	168	182
EPI			7.23	7.08	13.13	21.05	17.93	19.87
2				7.08		20.76		
4				7.04		14.82		19.28
6				7.00		9.58		12.42
8				6.91		7.92		8.89
9								
10								7.85

	196	210	224	238	252	266	280	294
EPI	22.27	22.88	21.62	22.61	18.93	15.41	11.05	6.74
2								
4		22.32		21.87		15.44		6.72
6		14.86		18.29		15.44		6.72
8		9.67		10.85		14.10		6.66
9								
10		8.28						

LAKE 302S Cond (uS/cm) 1976

DEPTH(m) DAY #

	009	099	119	126	140	154	168	182
EPI	21	20	19	19	19	19	20	19
2	20	21		19		19		
4	20	21		19		19		18
6	20	22		19		19		19
8				19		20		22
9	23	54						
10	52	106						28

	196	210	224	238	252	266	280	294
EPI	18	20	20	20	21	20	20	21
2								
4		20		19		20		21
6		20		21		20		21
8		22		23		21		21
9								
10		36						

LAKE 302S pH 1976

DEPTH(m) DAY #

	009	099	119	126	140	154	168	182
EPI	6.33	5.98	6.02	6.26	6.48	6.33	6.26	6.21
2	6.38	6.02		6.23		6.32		
4	6.29	5.92		6.34		6.37		6.21
6	5.92	5.84		6.36		6.38		6.15
8				6.33		6.04		6.01
9	5.96	6.41						
10	6.42	6.52						6.10

	196	210	224	238	252	266	280	294
EPI	6.27	6.48	6.51	6.51	6.38	6.33	6.50	6.53
2								
4		6.21		6.58		6.36		6.53
6		6.27		6.19		6.38		6.51
8		5.87		5.88		6.28		6.60
9								
10		6.13						

LAKE 302S O2 (mg/L) 1976

DEPTH(m) DAY #

	009	099	119	126	140	154	168	182
EPI	15.04	11.05		10.80		9.22		8.69
2	12.11	9.03		10.76		9.30		
4	9.91	5.10		10.76		11.68		8.65
6	6.40	3.44		10.72		12.58		10.38
8				10.50		8.11		3.96
9	.40	< .01						
10	< .01	< .01						.01

	196	210	224	238	252	266	280	294
EPI		8.08		9.57		8.50		10.80
2								
4		8.12		9.76		8.49		10.60
6		9.87		7.92		8.45		10.60
8		.81		< .01		7.40		10.60
9								
10		< .01						

LAKE 302S NH3-N (ug/L) 1976

DEPTH(m) DAY #

	009	099	119	126	140	154	168	182
EPI			18	4	10	2	11	7
2				4		2		
4				6		2		10
6				4		5		8
8				7		77		211
9								
10								603

	196	210	224	238	252	266	280	294
EPI	16	3	4	8	4	4	10	9
2								
4		8		9		3		6
6		6		6		3		7
8		5		7		3		12
9								
10		804						

LAKE 302S NO3-N (ug/L) 1976

DEPTH(m) DAY #

	009	099	119	126	140	154	168	182
EPI			95	85	48	1	4	3
2				85		1		
4				85		11		2
6				86		20		2
8				83		53		5
9								
10								3

	196	210	224	238	252	266	280	294
EPI	1	1	1	1	1	1	10	4
2								
4		1		1		1		3
6		1		1		1		3
8		1		1		1		3
9								
10		4						

LAKE 302S TDN (ug/L) 1976

DEPTH(m) DAY #

	009	099	119	126	140	154	168	182
EPI			372	316	336	284	246	300
2				316		260		
4				340		254		324
6				344		254		306
8				316		376		628
9								
10								1180

	196	210	224	238	252	266	280	294
EPI	222	222	248	266	275	265	310	226
2								
4		210		268		285		270
6		204		266		230		260
8		206		268		240		270
9								
10		1090						

LAKE 302S Susp N (ug/L) 1976

DEPTH(m) DAY #

	009	099	119	126	140	154	168	182
EPI			77	106	103	94	90	135
2				113		112		
4				118		112		136
6				97		161		141
8				130		276		218
9								
10								405

	196	210	224	238	252	266	280	294
EPI	46	102	101	65	133	87	114	102
2								
4		109		46		106		101
6		146		96		77		105
8		331		258		123		106
9								
10		485						

LAKE 302S TDP (ug/L) 1976

DEPTH(m) DAY #

	009	099	119	126	140	154	168	182
EPI			4	3	4	3	3	3
2				4		3		
4				4		3		3
6				4		3		3
8				4		4		4
9								
10								4

	196	210	224	238	252	266	280	294
EPI	2	2	2	3	3	2	3	3
2								
4		2		3		2		2
6		2		4		2		2
8		5		4		3		2
9								
10		5						

LAKE 302S Susp P (ug/L) 1976

DEPTH(m) DAY #

	009	099	119	126	140	154	168	182
EPI			5	8	5	4	5	5
2				6		4		
4				5		4		5
6				6		9		6
8				6		17		15
9								
10								42

	196	210	224	238	252	266	280	294
EPI	4	5	5	4	6	6	8	7
2								
4		4		4		6		7
6		7		13		6		6
8		30		19		10		6
9								
10		52						

LAKE 302S DIC (uM/L) 1976

DEPTH(m) DAY #

	009	099	119	126	140	154	168	182
EPI	59	125	123	109	51	50	50	51
2	61	142		109		51		
4	87	233		104		46		55
6	148	283		107		52		108
8				111		176		306
9	331	780						
10	641	1510						499

	196	210	224	238	252	266	280	294
EPI	38	40	40	40	58	72	60	59
2								
4		106		41		66		63
6		92		132		65		56
8		324		403		124		56
9								
10		549						

LAKE 302S DOC (uM/L) 1976

DEPTH(m) DAY #

	009	099	119	126	140	154	168	182
EPI			354	388	302	308	322	426
2				372		296		
4				410		286		418
6				348		280		386
8				342		284		376
9								
10								376

	196	210	224	238	252	266	280	294
EPI	372	390	450	454	500	520	470	420
2								
4		386		456		570		395
6		324		436		445		410
8		354		416		500		430
9								
10		336						

LAKE 302S Susp C (ug/L) 1976

DEPTH(m)	DAY #							
	009	099	119	126	140	154	168	182
EPI			690	910	890	700	870	1110
2				1050		720		
4				780		790		1080
6				880		1150		1240
8				840		2020		1890
9								
10								3860

DEPTH(m)	DAY #							
	196	210	224	238	252	266	280	294
EPI	1030	890	970	1050	1100	1060	1030	940
2								
4		1010		990		1060		1030
6		1370		1120		1080		920
8		2720		2460		1300		940
9								
10		4760						

LAKE 302S SO4 (mg/L) 1976

DEPTH(m)	DAY #							
	009	099	119	126	140	154	168	182
EPI			2.6				2.4	2.6
2								
4								2.8
6								2.6
8								2.4
9								
10								2.0

DEPTH(m)	DAY #							
	196	210	224	238	252	266	280	294
EPI	2.4	2.4	2.4	2.6	3.0	2.8	2.6	2.8
2								
4		2.4		2.6		2.8		2.8
6		2.4		2.6		2.8		2.6
8		1.8		1.8		2.6		2.6
9								
10		1.2						

LAKE 302S Cl (mg/L) 1976

DEPTH(m)	DAY #							
	009	099	119	126	140	154	168	182
EPI			1.4				1.6	1.6
2								
4								1.6
6								1.4
8								1.4
9								
10								1.4

DEPTH(m)	DAY #							
	196	210	224	238	252	266	280	294
EPI	1.8	1.8	1.6	2.0	1.6	2.0	1.8	1.8
2								
4		1.8		1.8		1.6		1.6
6		1.6		1.6		1.8		1.8
8		1.6		1.6		1.8		1.8
9								
10		1.6						

LAKE 302S Susp Fe (ug/L) 1976

DEPTH(m)	DAY #							
	009	099	119	126	140	154	168	182
EPI			99		55		14	
2								
4								
6								
8								
9								
10								

DEPTH(m)	DAY #							
	196	210	224	238	252	266	280	294
EPI	8		5		49		132	
2								
4								
6								
8								
9								
10								

LAKE 3025 SRSi (mg/L) 1976

DEPTH(m) DAY #

	009	099	119	126	140	154	168	182
EPI			.439	.406	.316	.217	.145	.165
2				.406		.216		
4				.404		.221		.163
6				.407		.186		.074
8				.410		.324		.228
9								
10								.775

	196	210	224	238	252	266	280	294
EPI	.113	.090	.063	.028	.048	.065	.078	.073
2								
4		.091		.037		.081		.076
6		.033		.087		.087		.076
8		.047		.251		.112		.070
9								
10		.080						

LAKE 3025 Chl-a (ug/L) 1976

DEPTH(m) DAY #

	009	099	119	126	140	154	168	182
EPI			5.1	3.2	4.5	2.1	4.3	3.2
2				4.2		1.9		
4				4.1		4.6		3.4
6				3.8		7.8		4.8
8				3.9		26.2		15.7
9								
10								56.2

	196	210	224	238	252	266	280	294
EPI	3.2	2.3	3.8	2.9	4.0	4.8	6.8	9.2
2								
4		2.8		2.9		4.4		9.0
6		6.1		5.3		4.7		8.7
8		38.2		19.1		7.0		7.9
9								
10		116.0						

Appendix 21

Lake 302 south basin 1978 water chemistry data

LAKE 302S Temp (C) 1978

DEPTH(m)	DAY #					
	151	179	207	235	263	291
EPI	15.55	20.42	21.87	18.30	14.38	8.75
4	10.79	16.62	20.94	18.30	14.38	8.75
6	7.43	9.83	12.10	16.38	14.38	8.75
8	6.48	7.43	8.12	9.33	10.56	8.75
10					7.83	8.73

LAKE 302S Cond (uS/cm) 1978

DEPTH(m)	DAY #					
	151	179	207	235	263	291
EPI	20	19	20	20	20	21
4	21	20	20	20	20	21
6	22	23	24	23	21	21
8	24	26	26	25	29	21
10					76	21

LAKE 302S pH 1978

DEPTH(m)	DAY #					
	151	179	207	235	263	291
EPI	6.49	6.96	6.60	6.32	6.39	6.40
4	6.20	6.94	6.80	6.42	6.43	6.41
6	6.19	6.10	6.10	6.00	6.36	6.43
8	6.02	5.97	5.91	5.88	6.01	6.38
10					6.45	6.31

LAKE 302S O2 (mg/L) 1978

DEPTH(m)	DAY #					
	151	179	207	235	263	291
EPI	8.60	8.80	8.20	8.20	8.70	9.72
4	8.22	9.57	8.50	8.19	8.54	9.95
6	4.70	4.80	6.12	3.98	8.63	10.00
8	1.62	.28	.20	< .01	< .01	9.87
10					< .01	9.82

LAKE 302S NH3-N (ug/L) 1978

DEPTH(m)	DAY #					
	151	179	207	235	263	291
EPI	16	5	6	5	3	8
4	13	3	6	3	3	7
6	55	31	30	3	3	6
8	225	226	170	162	268	9
10					2150	9

LAKE 302S NO3-N (ug/L) 1978

DEPTH(m)	DAY #					
	151	179	207	235	263	291
EPI	98	9	< 1	< 1	< 1	< 1
4	105	13	< 1	< 1	< 1	< 1
6	102	50	< 1	< 1	< 1	< 1
8	79	5	< 1	< 1	< 1	< 1
10					19	< 1

LAKE 302S TDN (ug/L) 1978

DEPTH(m)	DAY #					
	151	179	207	235	263	291
EPI	275	205	220	210	188	205
4	270	220	220	210	198	210
6	315	280	305	235	190	210
8	500	460	420	415	495	220
10					2410	215

LAKE 302S Susp N (ug/L) 1978

DEPTH(m)	DAY #					
	151	179	207	235	263	291
EPI	52	47	206	123	68	68
4	34	97	165	65	64	64
6	114	119	390	148	57	62
8	54	284	515	612	216	62
10					350	79

LAKE 302S TDP (ug/L) 1978

DEPTH(m)	DAY #					
	151	179	207	235	263	291
EPI	3	3	2	3	2	2
4	3	3	3	3	2	2
6	2	4	5	4	2	2
8	3	6	5	6	5	2
10					9	2

LAKE 302S Susp P (ug/L) 1978

DEPTH(m)	DAY #					
	151	179	207	235	263	291
EPI	4	3	4	4	5	7
4	5	3	3	3	4	5
6	7	8	10	7	4	5
8	8	26	27	26	24	5
10					49	6

LAKE 302S DIC (uM/L) 1978

DEPTH(m)	DAY #					
	151	179	207	235	263	291
EPI	71	45	66	86	75	76
4	163	45	63	82	71	76
6	264	252	292	328	81	75
8	360	395	446	464	585	76
10					1200	82

LAKE 302S DOC (uM/L) 1978

DEPTH(m)	DAY #					
	151	179	207	235	263	291
EPI	300	440	385	265	425	525
4	310	450	390	335	435	405
6	305	420	405	320	420	405
8	320	440	375	360	440	405
10					850	425

LAKE 302S Susp C (ug/L) 1978

DEPTH(m)	DAY #					
	151	179	207	235	263	291
EPI	660	690	750	650	650	680
4	650	770	1300	520	680	670
6	960	1180	3000	970	600	630
8	860	2210	4430	3790	1950	660
10					2720	760

LAKE 302S Cl (mg/L) 1978

DEPTH(m)	DAY #					
	151	179	207	235	263	291
EPI	1.6	1.8	2.0	1.8	2.0	2.6
4	1.8	1.8	2.0	1.8	2.0	2.6
6	2.0	1.8	2.2	1.8	2.0	2.6
8	1.6	2.2	2.0	2.0	2.0	2.6
10					1.8	2.6

LAKE 302S SO4 (mg/L) 1978

DEPTH(m)	DAY #					
	151	179	207	235	263	291
EPI	2.8	2.8	2.2	2.8	2.6	1.8
4	2.6	2.8	2.2	2.8	2.6	1.8
6	2.6	2.6	2.0	2.6	2.6	1.8
8	2.6	2.4	2.0	2.4	2.0	1.8
10					.8	1.8

LAKE 302S Na (mg/L) 1978

DEPTH(m)	DAY #					
	151	179	207	235	263	291
EPI	.61	.70	.67	.81	.79	.79
4	.62	.67	.69	.81	.79	.79
6	.66	.72	.75	.90	.81	.84
8	.68	.72	.77	.92	.86	.84
10					.86	1.07

LAKE 302S K (mg/L) 1978

DEPTH(m)	DAY #					
	151	179	207	235	263	291
EPI	.32	.30	.32	.35	.31	.37
4	.34	.30	.32	.35	.31	.37
6	.34	.32	.32	.37	.31	.37
8	.34	.34	.37	.41	.41	.37
10					.48	.37

LAKE 302S Ca (mg/L) 1978

DEPTH(m)	DAY #					
	151	179	207	235	263	291
EPI	1.67	1.64	1.50	1.93	1.87	1.68
4	1.77	1.64	1.59	1.93	1.82	1.62
6	1.92	1.91	1.83	2.26	1.82	1.68
8	1.97	1.80	1.69	1.71	2.20	1.68
10					5.24	1.62

LAKE 302S Mg (mg/L) 1978

DEPTH(m)	DAY #					
	151	179	207	235	263	291
EPI	.53	.46	.52	.58	.56	.60
4	.53	.48	.56	.56	.55	.59
6	.58	.50	.61	.66	.53	.59
8	.55	.54	.61	.68	.70	.58
10					.71	.57

LAKE 302S Chl-a (ug/L) 1978

DEPTH(m)	DAY #					
	151	179	207	235	263	291
EPI	2.8	4.3	5.7	5.0	13.1	
4	3.4	5.6	3.2	4.0	6.2	6.8
6	8.1	10.8	3.9	4.7	4.8	4.8
8	5.0	31.2	61.7	117.0	22.9	4.9
10					105.0	5.6

LAKE 302S Susp Fe (ug/L) 1978

DEPTH(m)	DAY #					
	151	179	207	235	263	291
EPI	35		14	39	75	98
4	67	21	7	35	67	92
6	106	83	81	169	55	84
8	211	544	831	876	114	87
10					641	126

LAKE 302S Colour (abs425nm) 1978

DEPTH(m)	DAY #					
	151	179	207	235	263	291
EPI	.039	.054	.032	.028	.031	.028
4	.035	.039	.053	.031	.031	.025
6	.043	.040	.045	.052	.034	.026
8	.059	.071	.059	.062	.161	.027
10					1.226	.030

LAKE 302S SRSi (mg/L) 1978

DEPTH(m)	DAY #					
	151	179	207	235	263	291
EPI	.680	.561	.482	.413	.344	.304
4	.641	.589	.487	.399	.343	.310
6	.760	.522	.463	.534	.345	.323
8	.938	.682	.083	.093	.318	.313
10					1.430	.319

Appendix 22

Lake 302 south basin 1979 water chemistry data

LAKE 302S Cond (uS/cm) 1979

DEPTH(m)	DAY #
	351
EPI	23
4	21
6	22
8	23
10	81

LAKE 302S NH3-N (ug/L) 1979

DEPTH(m)	DAY #
	351
EPI	28
4	61
6	118
8	290
10	1850

LAKE 302S pH 1979

DEPTH(m)	DAY #
	351
EPI	6.71
4	6.43
6	6.22
8	6.01
10	6.63

LAKE 302S NO3-N (ug/L) 1979

DEPTH(m)	DAY #
	351
EPI	7
4	7
6	32
8	31
10	11

LAKE 302S 02 (mg/L) 1979

DEPTH(m)	DAY #
	351
EPI	12.80
4	10.02
6	8.08
8	2.94
10	< .01

LAKE 302S TDN (ug/L) 1979

DEPTH(m)	DAY #
	351
EPI	290
4	300
6	460
8	650
10	2930

LAKE 302S Susp N (ug/L) 1979

DEPTH(m)	DAY #
	351
EPI	26
4	51
6	56
8	81
10	650

LAKE 302S TDP (ug/L) 1979

DEPTH(m)	DAY #
	351
EPI	2
4	2
6	5
8	3
10	7

LAKE 302S Susp P (ug/L) 1979

DEPTH(m)	DAY #
	351
EPI	4
4	4
6	11
8	9
10	84

LAKE 302S DIC (uM/L) 1979

DEPTH(m)	DAY #
	351
EPI	78
4	109
6	167
8	310
10	1170

LAKE 302S DOC (uM/L) 1979

DEPTH(m)	DAY #
	351
EPI	465
4	415
6	465
8	395
10	830

LAKE 302S Susp C (ug/L) 1979

DEPTH(m)	DAY #
	351
EPI	500
4	540
6	820
8	1000
10	4280

LAKE 302S Cl (mg/L) 1979

DEPTH(m)	DAY #
	351
EPI	2.4
4	2.2
6	3.2
8	2.2
10	2.0

LAKE 302S K (mg/L) 1979

DEPTH(m)	DAY #
	351
EPI	.40
4	.36
6	.38
8	.34
10	.48

LAKE 302S SO4 (mg/L) 1979

DEPTH(m)	DAY #
	351
EPI	2.8
4	2.4
6	2.6
8	2.2
10	.4

LAKE 302S Ca (mg/L) 1979

DEPTH(m)	DAY #
	351
EPI	2.05
4	1.83
6	1.94
8	1.94
10	4.79

LAKE 302S Na (mg/L) 1979

DEPTH(m)	DAY #
	351
EPI	.97
4	1.41
6	.85
8	1.33
10	1.52

LAKE 302S Mg (mg/L) 1979

DEPTH(m)	DAY #
	351
EPI	.67
4	.59
6	.63
8	.64
10	.75

LAKE 302S Mn (mg/L) 1979

DEPTH(m)	DAY #
	351
EPI	.06
4	.05
6	.05
8	.12
10	1.18

LAKE 302S Fe (mg/L) 1979

DEPTH(m)	DAY #
	351
EPI	.07
4	.03
6	.03
8	.20
10	17.10

LAKE 302S SRSi (mg/L) 1979

DEPTH(m)	DAY #
	351
EPI	.076
4	.143
6	.175
8	.564
10	1.880

LAKE 302S Chl-a (ug/L) 1979

DEPTH(m)	DAY #
	351
EPI	3.2
4	2.3
6	5.0
8	4.2
10	13.8

LAKE 302S Colour (abs425nm) 1979

DEPTH(m)	DAY #
	351
EPI	.036
4	.032
6	.053
8	.048
10	1.030

Appendix 23

Lake 302 south basin 1980 water chemistry data

LAKE 302S Temp (C) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI			17.06	20.69	21.42	19.50	11.77	4.53
4			16.75	20.40	21.40	19.20	11.73	4.58
6			10.89	14.61	18.15	19.10	11.45	4.54
8			8.34	9.75	11.07	12.00	11.37	4.57
10			7.57			8.80	11.00	4.53

	343
EPI	
4	
6	
8	
10	

LAKE 302S pH 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	6.44	6.30	6.74	6.68	6.40	6.57	6.60	6.66
4	6.22	6.02	6.79	6.65	6.43	6.66	6.59	6.70
6	5.99	5.81	6.35	6.29	6.11	6.60	6.51	6.70
8	5.91	5.73	6.10	6.02	5.87	5.90	6.43	6.73
10	6.58	6.63	6.07			6.66	6.21	6.74

	343
EPI	6.50
4	6.42
6	6.45
8	6.20
10	6.49

LAKE 302S Cond (uS/cm) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	23	24	31	21	22	21	21	21
4	22	22	21	22	22	21	21	21
6	22	22	22	21	24	21	22	21
8	23	22	24	23	22	25	21	21
10	119	131	31			107	23	21

	343
EPI	22
4	22
6	23
8	25
10	68

LAKE 302S O2 (mg/L) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	12.20	11.20	9.61	9.27	6.00	8.23	9.91	11.36
4	9.53	7.52	9.49	8.99	4.85	8.30	9.69	11.09
6	5.21	4.81	9.57	9.34	2.19	8.05	9.15	11.27
8	.20	.30	2.22	1.32	< .01	< .01	8.30	11.33
10	< .01	< .01	1.17			< .01	7.48	11.05

	343
EPI	11.71
4	11.17
6	10.18
8	9.89
10	< .01

LAKE 302S NH3-N (ug/L) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	95	52	15	10	11	11	19	40
4	114	41	18	8	14	9	21	24
6	170	43	30	9	12	8	15	26
8	390	292	268	141	7	11	32	26
10	4010	5750	548			2270	143	30

	343
EPI	37
4	46
6	71
8	247
10	1169

LAKE 302S TDN (ug/L) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	240	290	242	252	287	300	265	280
4	265	320	241	257	295	275	285	290
6	365	415	270	272	302	275	285	260
8	540	520	664	396	266	225	320	265
10	4425	6000	826			2790	480	255

	343
EPI	256
4	270
6	302
8	511
10	1279

LAKE 302S NO3-N (ug/L) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	9	14	5	1	1	< 1	< 1	4
4	21	98	3	2	2	< 1	< 1	< 1
6	104	192	19	1	3	< 1	< 1	< 1
8	60	28	34	3	2	< 1	< 1	< 1
10	11	11	5			10	< 1	< 1

	343
EPI	< 1
4	3
6	4
8	11
10	7

LAKE 302S Susp N (ug/L) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	43	55	72	78	66	75	156	28
4	80	34	57	71	52	83	39	59
6	50	45	108	91	81	56	86	54
8	66	189	187	347	268	214	100	110
10	561	570	352			373	75	141

	343
EPI	110
4	34
6	23
8	34
10	533

LAKE 302S TDP (ug/L) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	2	4	2	2	4	3	2	3
4	2	3	2	3	4	4	3	3
6	2	4	3	4	6	3	3	3
8	3	3	5	6	6	4	3	3
10	8	15	4			9	3	2

	343
EPI	3
4	2
6	3
8	4
10	7

LAKE 302S Susp P (ug/L) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	3	4	4	4	3		5	8
4	3	4	4	4	3		6	7
6	5	4	10	6	8		6	6
8	14	20	20	31	23		5	6
10	80	69	34				11	6

	343
EPI	8
4	5
6	6
8	7
10	72

LAKE 302S DIC (uM/L) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	116	140	50	59	111	70	70	83
4	170	198	53	65	115	71	74	79
6	270	280	117	151	429	78	81	81
8	390	400	270	378	553	622	92	79
10	1970	2150	432			1306	162	77

	343
EPI	86
4	119
6	145
8	276
10	906

LAKE 302S DOC (uM/L) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	530	460	369	393	415	660	460	1170
4	430	400	380	428	425	1050	460	870
6	390	385	364	428	400	810	440	660
8	390	400	364	440	380	760	460	670
10	1000	1000	369			1250	470	1970

	343
EPI	460
4	440
6	460
8	420
10	660

LAKE 302S Susp C (ug/L) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	530	380	570	750	640	690	770	890
4	590	400	640	680	740	810	730	820
6	550	450	970	980	1040	800	680	870
8	1150	1170	1520	2580	1630	1840	760	840
10	3570	3120	3270			2600	1000	940

	343
EPI	1070
4	540
6	610
8	620
10	3590

LAKE 302S SO4 (mg/L) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	2.6	2.8	2.7	3.1	3.1	2.9	3.1	3.0
4	2.4	2.2	2.7	3.0	3.1	2.9	3.1	2.8
6	2.4	2.2	2.7	3.0	2.9	2.8	3.2	2.9
8	2.0	2.0	2.4	2.6	2.7	2.2	3.2	2.9
10	.6	.2	2.2			.7	3.2	2.9

	343
EPI	2.9
4	2.8
6	2.8
8	2.7
10	1.6

LAKE 302S Cl (mg/L) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	2.6	2.2	1.9	2.4	2.0	2.1	2.0	1.8
4	2.6	2.2	2.0	2.5	2.0	2.1	2.0	1.9
6	2.6	2.2	1.9	2.1	1.7	2.2	2.1	2.0
8	2.6	2.0	2.0	2.1	1.6	1.8	2.0	1.9
10	2.2	1.8	2.0			1.6	2.7	2.0

	343
EPI	2.3
4	2.2
6	2.3
8	2.2
10	2.1

LAKE 302S Na (mg/L) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	.83	1.18	1.04	.81	.87	.82	.81	.75
4	.85	1.40	.94	.88	.84	.81	.79	.73
6	.78	1.15	1.44	.82	.84	.83	.79	.73
8	1.02	1.07	.92	.82	.82	.86	.76	.73
10	.86	1.31	1.07			.88	.79	.73

	343
EPI	.69
4	.69
6	.69
8	.69
10	.74

LAKE 302S K (mg/L) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	.38	.42	.40	.34	.32	.38	.42	.40
4	.36	.38	.42	.34	.32	.40	.42	.38
6	.36	.38	.40	.30	.32	.40	.42	.42
8	.38	.40	.42	.32	.32	.44	.40	.40
10	.62	.74	.46			.54	.42	.40

	343
EPI	.34
4	.34
6	.34
8	.36
10	.48

LAKE 302S Mg (mg/L) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	.63	.62	.58	.57	.62	.57	.57	.58
4	.57	.60	.60	.58	.59	.56	.58	.58
6	.58	.57	.58	.57	.61	.59	.58	.57
8	.57	.60	.59	.59	.67	.64	.57	.58
10	.78	.88	.60			.66	.58	.60

	343
EPI	.62
4	.61
6	.61
8	.62
10	.71

LAKE 302S Ca (mg/L) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	1.88	1.83	1.65	1.60	1.56	1.58	1.53	1.60
4	1.67	1.78	1.74	1.56	1.51	1.58	1.53	1.65
6	1.83	1.62	1.65	1.47	1.64	1.67	1.53	1.60
8	1.40	1.08	1.83	1.42	1.20	1.50	1.48	1.65
10	5.92	6.86	2.05			4.97	1.62	1.65

	343
EPI	1.70
4	1.65
6	1.65
8	1.75
10	3.14

LAKE 302S Mn (mg/L) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	.02	< .02	.01	< .01	< .01	< .01	< .02	.02
4	< .02	< .02	< .01	< .01	< .01	< .01	< .02	.02
6	.05	.05	.04	.03	.04	< .01	< .02	.02
8	.21	.24	.18	.33	.60	.89	< .02	.02
10	1.28	1.41	.43			1.40	.08	.02

	343
EPI	.02
4	< .02
6	< .02
8	.08
10	1.13

LAKE 302S Fe (mg/L) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	.07	.07	.04	< .03	< .03	< .04	< .04	.04
4	.03	< .03	.04	< .03	< .03	< .04	< .04	< .04
6	.03	< .03	.04	.07	.10	.04	< .04	< .04
8	.33	.62	.53	.20	.06	.29	< .04	< .04
10	25.50	29.70	.67			19.80	.07	.04

	343
EPI	< .04
4	< .04
6	< .04
8	.07
10	10.30

LAKE 302S Chl-a (ug/L) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	6.0	5.6	2.5	1.8	2.2	3.8	5.2	9.0
4	1.7	1.5	2.3	1.7	2.1	3.9	6.3	9.0
6	1.0	.9	5.1	4.6	6.5	3.7	6.2	9.0
8	2.5	2.5	13.4	39.2	22.6	27.2	5.3	9.1
10	12.9	15.2	40.2			111.0	10.5	8.8

	343
EPI	11.2
4	4.0
6	2.6
8	2.2
10	29.6

LAKE 302S SRSi (mg/L) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI	.100	.123	.163	.109	.132	.140	.141	.119
4	.177	.242	.159	.108	.146	.138	.152	.119
6	.429	.451	.073	.081	.256	.136	.159	.118
8	.730	.786	.302	.069	.037	.343	.152	.128
10	2.770	3.450	.601			1.430	.270	.121

	343
EPI	.037
4	.089
6	.132
8	.403
10	1.350

LAKE 302S Colour (abs425nm) 1980

DEPTH(m)	DAY #							
	022	056	162	190	218	246	274	302
EPI								
4								
6								
8								
10								

	343
EPI	.018
4	.014
6	.018
8	.025
10	.039

Appendix 24

Lake 302 south basin 1981 water chemistry data

LAKE 302S Temp (C) 1981

DEPTH(m) DAY #

	012	040	075	132	146	160	174	188
EPI				12.04		18.13		24.35
4				10.67		16.33		20.15
6				6.93		10.67		14.40
7				6.52		8.81		11.75
8				6.31		7.72		9.36
9				6.18		7.27		8.47
10				6.12		7.05		8.27

	202	216	230	244	258	272	286	300
EPI		22.78		20.90		13.16		3.92
4		22.60		20.90		13.22		3.99
6		17.23		19.38		13.23		3.99
7		13.32		14.82		13.21		3.99
8		10.53		11.29		13.20		3.99
9		9.05		9.25		13.04		3.99
10		8.80		8.75		11.77		3.99

	348
EPI	
4	
6	
7	
8	
9	
10	

LAKE 302S Cond (uS/cm) 1981

DEPTH(m) DAY #

	012	040	075	132	146	160	174	188
EPI	26	25	24	21	20	19	31	21
4	25	23	24	22		19		20
6	27	24	24	20		22		23
7				19		21		24
8	27	25	24	20		23		24
9				22		25		34
10	84	84	88					

	202	216	230	244	258	272	286	300
EPI	17	23	25	23	24	24	23	23
4		23		24		24		23
6		23		29		24		24
7		27		28		24		23
8		28		30		24		23
9		24		27		24		23
10		55		40		24		23

	348
EPI	28
4	28
6	25
7	26
8	28
9	29
10	31

LAKE 302S pH 1981

DEPTH(m) DAY #

	012	040	075	132	146	160	174	188
EPI	6.20	6.33	6.02	6.70	6.61	6.85	7.00	6.76
4	6.09	6.12	5.92	6.73		6.87		6.65
6	6.00	5.99	5.88	6.31		6.11		6.00
7				6.19		6.20		5.92
8	5.86	5.90	5.83	6.09		6.06		5.82
9				6.00		6.02		6.05
10	6.42	6.52	6.60					

	202	216	230	244	258	272	286	300
EPI	6.90	6.73	6.80	6.71	6.65	6.59	6.71	6.78
4		6.68		6.79		6.50		6.80
6		6.41		6.07		6.62		6.80
7		6.02		5.93		6.60		6.80
8		5.92		5.80		6.53		6.78
9		5.70		5.84		6.66		6.80
10		6.11		5.98		6.60		6.82

	348
EPI	6.62
4	6.60
6	6.52
7	6.33
8	6.23
9	6.19
10	6.19

LAKE 302S Alkal (uEq/L) 1981

DEPTH(m) DAY #

	012	040	075	132	146	160	174	188
EPI	59	67	61	66	60	49	51	54
4	57	66	53	66		50		55
6	50	68	52	68		116		81
7				65		49		99
8	14	54	46	68		124		112
9				48		95		190
10	131	180	187					

	202	216	230	244	258	272	286	300
EPI	58	57	61	65	67	68	59	68
4		58		64		68		66
6		64		131		69		67
7		100		114		69		66
8		116		137		69		65
9		81		113		66		66
10		305		238		71		63

	348
EPI	78
4	77
6	75
7	86
8	91
9	73
10	54

LAKE 302S 02 (mg/L) 1981

DEPTH(m) DAY #

	012	040	075	132	146	160	174	188
EPI	9.60	9.03	6.69	9.49		8.89		7.45
4	7.70	6.74	5.12	9.58		9.47		8.14
6	6.20	5.44	3.71	9.70		7.01		4.98
7				9.31		7.95		2.89
8	1.10	.60	.18	7.67		1.34		.12
9				6.03		.06		< .01
10	< .01	< .01	< .01					

	202	216	230	244	258	272	286	300
EPI		7.45		7.39		8.51		7.82
4		7.30		7.21		8.26		6.94
6		7.05		1.72		8.42		7.54
7		3.97		.21		8.35		7.07
8		.78		.08		8.42		7.82
9		.07		.04		8.39		6.46
10		< .01		.05		8.41		8.37

	348
EPI	10.74
4	10.73
6	7.80
7	9.50
8	5.40
9	3.57
10	.83

LAKE 302S NH3-N (ug/L) 1981

DEPTH(m) DAY #

	012	040	075	132	146	160	174	188
EPI	78	65	39	31	12	3	12	14
4	86	54	33	29		2		12
6	163	74	58	39		4		11
7				57		48		83
8	406	277	363	191		335		287
9				223		448		697
10	1746	1958	2081					

	202	216	230	244	258	272	286	300
EPI	4	< 1	< 1	< 1	1	< 1	< 1	< 1
4		< 1		< 1		< 1		< 1
6		< 1		5		4		< 1
7		< 1		19		3		< 1
8		< 1		426		< 1		< 1
9		1		17		3		< 1
10		715		1122		2		< 1

	348
EPI	20
4	21
6	62
7	81
8	127
9	268
10	425

LAKE 302S NO3-N (ug/L) 1981

DEPTH(m)	DAY #							
	012	040	075	132	146	160	174	188
EPI	7	36	129	< 1	4	< 1	2	2
4	14	86	165	16		1		1
6	54	140	184	21		1		1
7				29		< 1		1
8	40	112	98	29		< 1		1
9				28		< 1		5
10	8	107	31					

DEPTH(m)	DAY #							
	202	216	230	244	258	272	286	300
EPI	1	4	< 1	1	< 1	< 1	< 1	< 1
4		2		< 1		< 1		< 1
6		4		< 1		< 1		< 1
7		1		< 1		< 1		< 1
8		< 1		< 1		< 1		< 1
9		2		< 1		< 1		< 1
10		2		< 1		< 1		< 1

DEPTH(m)	DAY #
	348
EPI	< 1
4	< 1
6	< 1
7	< 1
8	1
9	3
10	2

LAKE 302S TDN (ug/L) 1981

DEPTH(m)	DAY #							
	012	040	075	132	146	160	174	188
EPI	390	368	150	227	304	243	305	299
4	396	392	409	232		241		283
6	456	435	396	247		267		305
7				256		313		429
8	697	663	4462	309		677		716
9				478		799		1253
10	2439	2636	1835					

DEPTH(m)	DAY #							
	202	216	230	244	258	272	286	300
EPI	233	268	303	235	307	227	156	267
4		266		229		216		274
6		244		217		224		237
7		283		692		227		255
8		279		1244		216		255
9		245		1332		227		283
10		1156		1222		227		285

DEPTH(m)	DAY #
	348
EPI	305
4	312
6	322
7	360
8	426
9	615
10	857

LAKE 302S Susp N (ug/L) 1981

DEPTH(m)	DAY #							
	012	040	075	132	146	160	174	188
EPI	17	236	34	34	63	21	51	29
4	14	28		220		26		63
6	8	31	18	57		29		84
7				194		116		95
8	186	153	153	106		137		296
9						137		232
10	321	370	520					

	202	216	230	244	258	272	286	300
EPI	71	66	60	59	62	45		61
4		63		68		58		77
6		63		127		53		66
7		118		166		58		71
8		113		251		58		66
9		328		288		61		82
10		901		392		61		66

	348
EPI	34
4	24
6	27
7	31
8	46
9	88
10	22

LAKE 302S TDP (ug/L) 1981

DEPTH(m)	DAY #							
	012	040	075	132	146	160	174	188
EPI	3	6	4	2	3	5	3	5
4	3	3	2	2		3		4
6	3	5	3	2		6		5
7				3		8		7
8	4	8	33	3		10		8
9				4		9		8
10	6	18	66					

	202	216	230	244	258	272	286	300
EPI	4	3	2	3	5	2	3	4
4		3		4		2		3
6		3		5		2		4
7		5		5		2		3
8		6		5		1		3
9		6		5		2		3
10		7		7		1		4

	348
EPI	1
4	2
6	2
7	3
8	2
9	2
10	3

LAKE 302S Susp P (ug/L) 1981

DEPTH(m)	DAY #							
	012	040	075	132	146	160	174	188
EPI	5	5	4	7	4	4	5	5
4	4	4	5	9		4		5
6	5	5	7	10		15		10
7				12		17		17
8	22	18	24	12		80		32
9				15		29		51
10	60	67	73					

	202	216	230	244	258	272	286	300
EPI	4	5	4	5	4	6	4	4
4		5		5		6		5
6		5		9		6		5
7		8		16		5		6
8		13		24		6		5
9		25		25		4		5
10		60		62		5		5

	348
EPI	5
4	4
6	4
7	5
8	5
9	8
10	13

LAKE 302S DIC (uM/L) 1981

DEPTH(m)	DAY #							
	012	040	075	132	146	160	174	188
EPI	141	199	201	76	87	85	67	93
4	168	221	240	74		86		96
6	226	268	258	122		308		249
7				128		204		321
8	350	391	361	151		465		439
9				227		550		671
10	1134	1111	1226					

	202	216	230	244	258	272	286	300
EPI	71	74	77	83	84	100	90	83
4		78		82		103		82
6		112		361		98		78
7		294		435		101		85
8		466		639		98		84
9		499		522		95		83
10		877		821		105		81

	348
EPI	75
4	68
6	103
7	161
8	188
9	244
10	384

LAKE 302S DOC (uM/L) 1981

DEPTH(m)	DAY #							
	012	040	075	132	146	160	174	188
EPI	510	470	590	460	440	400	380	420
4	450	430	470	500		430		460
6	500	420	520	490		410		400
7				400		560		390
8	500	390	680	420		450		380
9				430		440		360
10	1200	740	640					

DEPTH(m)	DAY #							
	202	216	230	244	258	272	286	300
EPI	480	420	400	510	490	510	890	390
4		430		600		470		820
6		430		420		450		430
7		410		510		440		560
8		370		360		440		470
9		370		500		460		400
10		410		480		450		510

DEPTH(m)	DAY #
	348
EPI	640
4	770
6	650
7	1240
8	380
9	840
10	950

LAKE 302S Susp C (ug/L) 1981

DEPTH(m)	DAY #							
	012	040	075	132	146	160	174	188
EPI	490	670	290	760	540	520	660	640
4	450	540		970		530		780
6	430	550	380	1130		1040		930
7				1230		1280		1300
8	1670	1020	940	1050		1450		2010
9						1310		3290
10	2300	2420	3060					

DEPTH(m)	DAY #							
	202	216	230	244	258	272	286	300
EPI	680	670	630	740	600	540	670	640
4		760		680		760		700
6		730		1060		480		650
7		1000		1420		530		690
8		1000		1920		530		670
9		1890		1980		690		720
10		5386		2920		570		780

DEPTH(m)	DAY #
	348
EPI	460
4	410
6	400
7	380
8	550
9	730
10	250

LAKE 302S Cl (mg/L) 1981

DEPTH(m)	DAY #							
	012	040	075	132	146	160	174	188
EPI	2.3	2.3	2.1	1.9	1.8	1.9	1.8	2.6
4	2.1	2.3	2.1	1.9		1.9		1.7
6	2.1	2.1	2.1	1.9		1.9		1.9
7				1.9		1.9		1.9
8	2.2	2.2	2.0	1.8		1.9		1.9
9				2.0		2.0		1.9
10	2.0	1.9	1.9					

	202	216	230	244	258	272	286	300
EPI	1.7	1.8	1.7	1.6	1.6	1.7	1.6	1.7
4		2.2		1.6		1.7		1.6
6		1.7		1.8		1.8		1.6
7		1.8		1.7		1.7		1.6
8		1.8		1.7		1.7		1.6
9		1.8		2.0		1.7		1.6
10		1.8		1.7		1.7		1.5

	348
EPI	1.6
4	1.6
6	1.6
7	1.6
8	1.6
9	1.6
10	1.6

LAKE 302S SO4 (mg/L) 1981

DEPTH(m)	DAY #							
	012	040	075	132	146	160	174	188
EPI	3.3	3.1	2.9	2.9	2.9	2.9	2.8	3.0
4	3.0	2.9	2.8	2.7		2.8		3.0
6	2.9	2.8	2.7	2.8		2.9		2.9
7				3.0		2.9		2.7
8	2.6	2.5	2.6	2.9		2.6		2.6
9				3.1		2.3		2.1
10	.7	.4	.9					

	202	216	230	244	258	272	286	300
EPI	3.0	3.1	3.0	3.3	3.1	3.1	3.1	3.0
4		3.5		3.2		3.0		3.1
6		3.1		2.8		3.0		3.1
7		2.9		2.5		3.0		3.1
8		2.7		2.3		3.0		3.1
9		2.6		2.5		3.0		3.1
10		1.8		1.8		3.0		3.2

	348
EPI	3.1
4	3.0
6	3.1
7	3.1
8	3.0
9	2.8
10	2.7

LAKE 302S H2S-S (mg/L) 1981

DEPTH(m)	DAY #							
	012	040	075	132	146	160	174	188
EPI								
4								
6				< .01				
7				< .01		< .01		< .01
8				< .01		< .01		< .01
9				< .01		< .01		< .01
10								

	202	216	230	244	258	272	286	300
EPI								
4		< .01						
6		< .01		< .01		< .01		< .01
7		< .01		< .01		< .01		< .01
8		< .01		< .01		< .01		< .01
9		< .01		< .01		< .01		< .01
10		< .01		< .01		< .01		< .01

	348
EPI	
4	
6	< .01
7	< .01
8	< .01
9	< .01
10	< .01

LAKE 302S Na (mg/L) 1981

DEPTH(m)	DAY #							
	012	040	075	132	146	160	174	188
EPI	.82	.72	.81	.81	.82	.75	.77	.74
4	.77	.71	.76	.78		.77		.74
6	.75	.66	.78	.80		.77		.75
7				.81		.85		.77
8	.78	.67	.74	.80		.87		.80
9				.82		.84		.80
10	.75	.69	.74					

	202	216	230	244	258	272	286	300
EPI	.75	.79	.95	.87	.92	.98	.87	.84
4		.83		.97		1.01		.81
6		.79		.92		1.05		.80
7		.81		.99		.98		.84
8		.79		.91		.95		.85
9		.81		.99		.96		.83
10		.88		1.04		.90		.81

	348
EPI	.86
4	.84
6	.84
7	.84
8	.86
9	.86
10	.87

LAKE 302S K (mg/L) 1981

DEPTH(m) DAY #

	012	040	075	132	146	160	174	188
EPI	.42	.42	.35	.36	.38	.40	.41	.40
4	.40	.40	.35	.36		.40		.38
6	.42	.42	.35	.38		.40		.41
7				.38		.42		.43
8	.44	.42	.37	.36		.47		.45
9				.38		.45		.46
10	.50	.54	.45					

	202	216	230	244	258	272	286	300
EPI		.42	.47	.51	.36	.36	.46	.48
4		.40		.51		.38		.48
6		.40		.56		.36		.48
7		.42		.58		.36		.48
8		.44		.62		.38		.50
9		.49		.62		.36		.48
10		.58		.66		.36		.50

	348
EPI	.45
4	.45
6	.45
7	.47
8	.45
9	.47
10	.53

LAKE 302S Ca (mg/L) 1981

DEPTH(m) DAY #

	012	040	075	132	146	160	174	188
EPI	1.90	2.04	1.86	1.69	1.82	1.82	1.71	1.63
4	1.80	1.86	1.67	1.73		1.87		1.63
6	1.75	1.80	1.67	1.73		1.87		1.87
7				1.82		1.78		1.96
8	1.34	1.61	1.49	1.82		1.91		1.49
9				1.87		2.05		2.48
10	4.53	5.27	5.08					

	202	216	230	244	258	272	286	300
EPI	1.68	1.57	1.64	1.73	1.85	1.85	1.84	1.66
4		1.47		.23		1.89		1.71
6		1.61		2.23		1.93		1.66
7		1.96		1.73		1.80		1.66
8		1.96		1.78		1.80		1.66
9		1.09		1.37		1.98		1.71
10		3.09		1.91		1.85		1.71

	348
EPI	1.78
4	1.69
6	1.78
7	1.86
8	1.86
9	1.99
10	2.03

LAKE 302S Mg (mg/L) 1981

DEPTH(m)	DAY #							
	012	040	075	132	146	160	174	188
EPI	.65	.75	.69	.59	.64	.63	.54	.56
4	.63	.70	.67	.61		.63		.56
6	.62	.68	.67	.60		.65		.62
7				.63		.63		.65
8	.66	.70	.67	.64		.64		.65
9				.63		.65		.66
10	.70	.76	.74					

	202	216	230	244	258	272	286	300
EPI	.58	.57	.62	.65	.68	.68	.64	.66
4		.54		.05		.65		.64
6		.58		.77		.66		.64
7		.65		.67		.65		.64
8		.66		.66		.65		.65
9		.66		.79		.64		.64
10		.66		.82		.66		.65

	348
EPI	.70
4	.66
6	.71
7	.73
8	.73
9	.72
10	.70

LAKE 302S Mn (mg/L) 1981

DEPTH(m)	DAY #							
	012	040	075	132	146	160	174	188
EPI	.02	< .02	.02	.01	< .01		< .02	< .02
4	< .02	< .02	.04	< .01				< .02
6	.03	.03	.09	< .01				.04
7				< .01				.12
8	.37	.30	.25	.01				.60
9				.03				.76
10	1.24	1.07	.96					

	202	216	230	244	258	272	286	300
EPI	< .02	< .01	< .01	< .01	.01	.04	.01	< .01
4		< .01		< .01		.04		< .01
6		< .01		.31		.04		< .01
7		.10		.70		.04		< .01
8		.29		1.16		.04		< .01
9		.78		1.01		.04		< .01
10		1.06		1.35		.04		< .01

	348
EPI	< .02
4	< .02
6	< .02
7	< .02
8	< .02
9	.02
10	.11

LAKE 302S Fe (mg/L) 1981

DEPTH(m)	DAY #							
	012	040	075	132	146	160	174	188
EPI	.14	< .03	.04	< .03	.03	.05	.12	.02
4	.07	.03	.04	.03		.06		< .02
6	.10	.07	.04	.03		.05		.07
7				< .03		.07		.19
8	.49	.28	.20	.03		.42		.23
9				.08		.59		.49
10	12.60	14.30	12.40					

DEPTH(m)	DAY #							
	202	216	230	244	258	272	286	300
EPI	.03	< .03	.04	.78	.09	.15	.03	< .03
4		< .03		.04		.15		< .03
6		< .03		.11		.12		< .03
7		.08		.11		.15		< .03
8		.26		.14		.15		.03
9		.05		.11		.12		.03
10		.76		.74		.15		.03

DEPTH(m)	DAY #
	348
EPI	< .04
4	< .04
6	< .04
7	< .04
8	< .04
9	.19
10	.58

LAKE 302S Ferrous-Fe (mg/L) 1981

DEPTH(m)	DAY #							
	012	040	075	132	146	160	174	188
EPI				< .01		< .01		< .01
4				< .01		< .01		.01
6				< .01		< .01		< .01
7				< .01		< .01		< .01
8				< .01		.01		.09
9				< .01		.03		.64
10								

DEPTH(m)	DAY #							
	202	216	230	244	258	272	286	300
EPI		< .01		< .01		< .01		< .01
4		.06		< .01		< .01		.05
6		.01		< .01		< .01		.01
7		.02		< .01		< .01		< .01
8		.02				< .01		< .01
9		.04		.02		< .01		< .01
10		1.74		.36		.01		< .01

DEPTH(m)	DAY #
	348
EPI	.01
4	< .01
6	< .01
7	< .01
8	< .01
9	< .01
10	.02

LAKE 302S Susp Fe (ug/L) 1981

DEPTH(m)	DAY #							
	012	040	075	132	146	160	174	188
EPI			40	31	26	42	21	27
4			96	37		55		24
6			202	51		132		120
7				59		113		206
8			809	79		364		1104
9				142		1161		4304
10			591					

	202	216	230	244	258	272	286	300
EPI	41	37	26		52	148	84	87
4		97				137		59
6		67				106		62
7		192				128		54
8		425				170		57
9		877				131		67
10		6893				195		92

	348
EPI	41
4	38
6	53
7	66
8	128
9	362
10	876

LAKE 302S SRSi (mg/L) 1981

DEPTH(m)	DAY #							
	012	040	075	132	146	160	174	188
EPI	.097	.135	.220	.102	.060	.034	.061	.189
4	.139	.219	.280	.110		.038		.223
6	.349	.310	.358	.135		.035		.161
7				.128		.035		.123
8	.693	.630	.583	.194		.105		.060
9				.310		.336		.295
10	1.550	1.790	1.700					

	202	216	230	244	258	272	286	300
EPI	.199	.163	.135	.121	.089	.110	.134	.112
4		.168				.107		.113
6		.169		.277		.103		.111
7		.243		.098		.109		.112
8		.258		.338		.104		.114
9		.059		.175		.103		.111
10		.449		.533		.103		.112

	348
EPI	.115
4	.125
6	.189
7	.259
8	.393
9	.559
10	.753

LAKE 302S Chl-a (ug/L) 1981

DEPTH(m) DAY #

	012	040	075	132	146	160	174	188
EPI	6.1	3.4	1.6	4.3	2.9	2.4	1.5	1.6
4	1.7	1.0	2.2	4.6		2.3		2.5
6	1.3	1.1	1.6	13.4		5.4		4.0
7				15.1		14.0		4.2
8	15.0	3.3	3.5	15.3		17.2		26.0
9				15.0		25.1		7.9
10	8.9	12.9	19.3					

	202	216	230	244	258	272	286	300
EPI	2.2	1.7	2.6	2.3	2.2	3.7	5.2	5.5
4		2.7		2.8		4.3		5.2
6		3.2		4.4		4.6		5.2
7		4.3		20.1		3.8		5.4
8		5.2		29.1		2.5		5.1
9		27.2		22.2		3.6		5.2
10		97.8		89.7		3.2		5.9

	348
EPI	3.6
4	2.8
6	2.1
7	1.7
8	1.7
9	2.0
10	3.2

LAKE 302S Colour (abs425nm) 1981

DEPTH(m) DAY #

	012	040	075	132	146	160	174	188
EPI				.023		.025		.028
4				.023		.026		.035
6				.023		.040		.034
7				.028		.049		.059
8				.029		.097		.076
9				.041		.127		.170
10								

	202	216	230	244	258	272	286	300
EPI				.033		.063		.022
4				.027		.062		.024
6				.057		.054		.023
7				.035		.047		.021
8				.066		.058		.023
9				.033		.063		.024
10				.322		.043		.024

	348
EPI	.062
4	.056
6	.056
7	.064
8	.090
9	.164
10	.297

Appendix 25

Lake 302 south basin 1982 water chemistry data

LAKE 302S Temp (C) 1982

DEPTH(m)	DAY #							
	012	040	068	124	138	152	166	173
EPI					11.20		16.42	
4					10.30		14.24	
6					6.25		7.08	
7					5.80		5.90	
8					5.63		5.33	
9					5.57		4.90	
10					5.51		4.79	

	180	181	182	183	184	185	186	188
EPI								
4								
6								
7								
8								
9								
10								

	189	193	194	195	196	201	202	203
EPI			21.66					
4			19.76					
6			12.56					
7			9.97					
8			8.58					
9			7.90					
10			7.75					

	204	207	208	210	215	217	222	224
EPI							20.21	
4							20.04	
6							15.13	
7							12.25	
8							9.51	
9							8.34	
10							8.17	

	225	229	231	232	236	238	243	245
EPI								
4								
6								
7								
8								
9								
10								

	250	252	257	259	264	266	271	273
EPI	16.33							
4	16.25							
6	16.14							
7	15.42							
8	10.43							
9	8.60							
10	8.32							

	278	280	285	287	292	298	348
EPI	10.73					6.73	
4	10.92					6.73	
6	10.92					6.73	
7	10.92					6.73	
8	10.92					6.73	
9	10.92					6.73	
10	10.81					6.73	

LAKE 3025 Cond (uS/cm) 1982

DEPTH(m) DAY #

	012	040	068	124	138	152	166	173
EPI	26	26	27	24	24	23	24	23
4	25	26	25		24		24	
6	26	26	26		25		26	
7	27	27	26		26		25	
8	27	27	26		27		28	
9	28	25	25		33		30	
10	38	57	60				31	

	180	181	182	183	184	185	186	188
EPI	22	24	23				24	24
4								
6								
7								
8								
9								
10								

	189	193	194	195	196	201	202	203
EPI	24		23					24
4			24					
6			23					
7			24					
8			25					
9			28					
10			32					

	204	207	208	210	215	217	222	224
EPI		24	23	25	24	24	27	24
4							27	
6							27	
7							28	
8							28	
9							30	
10							44	

	225	229	231	232	236	238	243	245
EPI		25	26		25	25	27	26
4								
6								
7								
8								
9								
10								

	250	252	257	259	264	266	271	273
EPI	27	27	34	26	29	27	26	26
4	26							
6	26							
7	26							
8	26							
9	28							
10	55							

	278	280	285	287	292	298	348
EPI	27	29	27	26	30	28	28
4	26					27	28
6	27					27	28
7	27					27	28
8	26					26	28
9	26					26	30
10	26					26	32

LAKE 302S pH 1982

DEPTH(m) DAY #

	012	040	068	124	138	152	166	173
EPI	6.43	6.47	6.28	6.18	6.35	6.63	6.71	6.92
4	6.38	6.26	5.92		6.25		6.80	
6	6.27	6.03	5.89		5.99		6.19	
7	6.23	5.90	5.81		5.95		6.00	
8	6.19	5.84	5.71		5.96		6.02	
9	6.09	5.74	5.73		6.05		5.92	
10	6.23	6.49	6.51				6.00	

	180	181	182	183	184	185	186	188
EPI	6.90	6.30	6.39				6.40	6.32
4								
6								
7								
8								
9								
10								

	189	193	194	195	196	201	202	203
EPI	6.27		6.31		6.32		6.28	6.32
4			6.35					
6			6.42					
7			6.11					
8			5.89					
9			5.92					
10			5.94					

	204	207	208	210	215	217	222	224
EPI	6.35	6.37	6.28	6.33	6.33	6.30	6.30	6.30
4							6.28	
6							6.23	
7							6.03	
8							5.89	
9							5.77	
10							5.92	

	225	229	231	232	236	238	243	245
EPI	6.32	6.45	6.29	6.37	6.33	6.35	6.24	5.49
4								
6								
7								
8								
9								
10								

	250	252	257	259	264	266	271	273
EPI	6.22	5.84	6.00	6.03	5.97	5.89	6.07	5.91
4	6.21							
6	6.22							
7	6.21							
8	5.98							
9	5.90							
10	6.29							

	278	280	285	287	292	298	348
EPI	5.96	5.94	5.87	5.89	5.94	6.03	5.80
4	5.93					6.04	5.75
6	5.94					6.02	5.69
7	5.92					6.02	5.67
8	5.96					6.00	5.68
9	5.97					6.00	5.59
10	5.98					6.01	6.63

LAKE 302S Alkal (uEq/L) 1982

DEPTH(m)	DAY #							
	012	040	058	124	138	152	166	173
EPI	69	64	86	70	66	70	81	58
4	77	76	74		69		73	
6	84	77	75		75		77	
7	88	74	71		80		97	
8	92	70	62				105	
9	86	73	51		117		125	
10	199	277	306				139	

	180	181	182	183	184	185	186	188
EPI	60	44	49	48	53	42	39	27
4								
6								
7								
8								
9								
10								

	189	193	194	195	196	201	202	203
EPI	24	33	28	20	28	10	18	25
4			28					
6			61					
7			74					
8			89					
9			113					
10			156					

	204	207	208	210	215	217	222	224
EPI	27	20		28	29	25	27	22
4							27	
6							31	
7							88	
8							102	
9							120	
10							265	

	225	229	231	232	236	238	243	245
EPI	22	22	19	23	23	21	27	17
4								
6								
7								
8								
9								
10								

	250	252	257	259	264	266	271	273
EPI	19	7	13	13	16	12	15	11
4	22							
6	20							
7	20							
8	58							
9	127							
10	336							

	278	280	285	287	292	298	348
EPI	13	10	11	12	12	14	24
4	13					13	24
6	14					15	23
7	13					13	23
8	12					14	29
9	14					15	55
10	13					15	122

LAKE 302S 02 (mg/L) 1982

DEPTH(m) DAY #

	012	040	068	124	138	152	166	173
EPI	11.12	13.02	11.06		10.00		9.25	
4	9.76	10.74	7.32		9.61		9.32	
6	8.12	7.72	7.95		5.21		8.69	
7	6.10	5.13	5.07		5.49		5.64	
8	4.37	1.15	1.56		3.57		2.78	
9	.63	.27	.46		1.90		.49	
10		< .01	< .01				.11	

	180	181	182	183	184	185	186	188
EPI	9.06							
4								
6								
7								
8								
9								
10								

	189	193	194	195	196	201	202	203
EPI			8.54					
4			8.31					
6			10.79					
7			8.91					
8			3.73					
9			.16					
10			.09					

	204	207	208	210	215	217	222	224
EPI							8.26	
4							8.18	
6							8.27	
7							6.87	
8							2.66	
9							.15	
10							< .01	

	225	229	231	232	236	238	243	245
EPI								
4								
6								
7								
8								
9								
10								

	250	252	257	259	264	266	271	273
EPI	8.75							
4	8.68							
6	8.67							
7	8.96							
8	4.81							
9	.19							
10	.08							

	278	280	285	287	292	298	308
EPI	9.71					11.12	11.37
4	9.71					10.94	10.92
6	9.68					10.93	10.98
7	9.69					11.00	10.87
8	9.71					10.50	10.73
9	9.68					10.57	11.93
10	9.59					10.48	3.45

LAKE 3025 NH3-N (ug/L) 1982

DEPTH(m) DAY #

	012	040	068	124	138	152	166	173
EPI	43	87	48	27	< 1	< 1	< 1	< 1
4	53	89	8		< 1		< 1	
6	80	41	< 1		13		< 1	
7	162	82	< 1		34		11	
8	249	176	73		161		149	
9	403	345	165		505		329	
10	796	1063	1015				445	

	180	181	182	183	184	185	186	188
EPI	< 1	< 1	< 1	< 1	< 1	< 1		
4								
6								
7								
8								
9								
10								

	189	193	194	195	196	201	202	203
EPI			14					
4			4					
6			< 1					
7			< 1					
8			< 1					
9			307					
10			473					

	209	207	208	210	215	217	222	224
EPI		< 1	20	2	4	20	2	5
4							1	
6							2	
7							3	
8							4	
9							280	
10							952	

	225	229	231	232	236	238	243	245
EPI		5	5		37	27	32	13
4								
6								
7								
8								
9								
10								

	250	252	257	259	264	266	271	273
EPI	18		16	14	4	5	17	19
4	12							
6	17							
7	12							
8	15							
9	206							
10	1190							

	278	280	285	287	292	298	348
EPI	24	15	15	17	24	23	62
4	42					24	74
6	18					17	52
7	14					14	54
8	16					28	77
9	26					33	75
10	21					29	357

LAKE 302S NO2-N (ug/L) 1982

DEPTH(m) DAY #

	012	040	068	124	138	152	156	173
EPI					< 1		< 1	
4					< 1		< 1	
6					< 1		< 1	
7					< 1		< 1	
8					< 1		< 1	
9					< 1		< 1	
10							< 1	

	180	181	182	183	184	185	186	188
EPI	< 1	< 1		< 1	< 1	< 1		
4								
6								
7								
8								
9								
10								

	189	193	194	195	196	201	202	203
EPI			< 1					
4			< 1					
6			< 1					
7			< 1					
8			< 1					
9			< 1					
10			< 1					

	204	207	208	210	215	217	222	224
EPI		< 1			< 1		< 1	
4							< 1	
6							< 1	
7							< 1	
8							< 1	
9							< 1	
10							< 1	

	225	229	231	232	236	238	243	245
EPI		< 1			< 1		< 1	
4								
6								
7								
8								
9								
10								

	250	252	257	259	264	266	271	273
EPI	< 1		< 1		< 1		< 1	
4	< 1							
6	< 1							
7	< 1							
8	< 1							
9	< 1							
10	< 1							

	278	280	285	287	292	298	348
EPI	< 1		< 1		< 1	< 1	< 1
4	< 1					1	< 1
6	< 1					< 1	< 1
7	< 1					< 1	< 1
8	< 1					< 1	< 1
9	< 1					1	< 1
10	< 1					< 1	10

LAKE 3025 NO3-N (ug/L) 1982

DEPTH(m) DAY #

	012	040	068	124	138	152	166	173
EPI	< 1	< 1	< 1	85	68	89	21	< 1
4	< 1	19	116		68		21	
6	11	81	177		70		31	
7	29	241	271		72		44	
8	36	239	306		67		43	
9	23	39	128		49		24	
10	< 1	< 1	< 1				3	

	180	181	182	183	184	185	186	188
EPI	< 1	< 1	< 1	< 1	< 1	< 1		
4								
6								
7								
8								
9								
10								

	189	193	194	195	196	201	202	203
EPI			2					< 1
4			1					
6			1					
7			3					
8			< 1					
9			2					
10			< 1					

	204	207	208	210	215	217	222	224
EPI		< 1	< 1	< 1	< 1	< 1	< 1	< 1
4							< 1	
6							< 1	
7							< 1	
8							< 1	
9							< 1	
10							< 1	

	225	229	231	232	236	238	243	245
EPI	< 1	< 1	< 1	< 1	< 1	9	5	< 1
4								
6								
7								
8								
9								
10								

	250	252	257	259	264	266	271	273
EPI	1	5	< 1	< 1	< 1	2	1	5
4	< 1							
6	2							
7	< 1							
8	1							
9	< 1							
10	< 1							

	278	280	285	287	292	298	348
EPI	3	2	6	3	5	2	7
4	5					1	8
6	2					1	8
7	3					1	9
8	2					1	12
9	3					2	14
10	1					3	28

LAKE 302S TDN (ug/L) 1982

DEPTH(m) DAY #

	012	040	068	124	138	152	166	173
EPI	348	350	389	385	312	303	366	397
4	331	340	392		340		345	
6	708	379	412		373		345	
7	378	474	454		398		432	
8	586	571	528		489		559	
9	767	715	599		850		751	
10	1612	1180	1444				884	

	180	181	182	183	184	185	186	188
EPI	253	288						
4								
6								
7								
8								
9								
10								

	189	193	194	195	196	201	202	203
EPI			262					
4			241					
6			250					
7			237					
8			312					
9			589					
10			736					

	204	207	208	210	215	217	222	224
EPI		232			256		213	
4							225	
6							208	
7							225	
8							222	
9							554	
10							1290	

	225	229	231	232	236	238	243	245
EPI		258	277		307	300	260	290
4								
6								
7								
8								
9								
10								

	250	252	257	259	264	266	271	273
EPI	236		254		224		244	
4	216							
6	228							
7	232							
8	230							
9	464							
10	1405							

	278	280	285	287	292	298	348
EPI	244		267		274	253	314
4	278					262	299
6	259					243	361
7	253					234	299
8	240					272	318
9	320					322	34[illegible]
10	250					293	637

LAKE 302S Susp N (ug/L) 1982

DEPTH(m) DAY #

	012	040	068	124	138	152	166	173
EPI	61	42	31	65	66	72	98	40
4	57	13	31		51		106	
6	48	50	10		92		136	
7	70	33	31		69		169	
8	181	42	107		99		163	
9	960	165	107		106		193	
10		259	208				218	

	180	181	182	183	184	185	186	188
EPI	112							
4								
6								
7								
8								
9								
10								

	189	193	194	195	196	201	202	203
EPI			35					
4			50					
6			42					
7			73					
8			282					
9			216					
10			212					

	204	207	208	210	215	217	222	224
EPI		41					46	
4							48	
6							48	
7							106	
8							110	
9							245	
10							324	

	225	229	231	232	236	238	243	245
EPI		37			37		55	
4								
6								
7								
8								
9								
10								

	250	252	257	259	264	266	271	273
EPI	57		46		72		60	
4	52							
6	57							
7	60							
8	84							
9	265							
10	446							

	278	280	285	287	292	298	348
EPI	61		69		46	67	44
4	76					74	49
6	63					62	39
7	74					62	36
8	74					71	36
9	65					78	36
10	65					78	90

LAKE 3025 TDP (ug/L) 1982

DEPTH(m) DAY #

	012	040	068	124	138	152	166	173
EPI	3	3	3	3	2	3	2	6
4	3	3	2		2		2	
6	3	3	2		2		3	
7	3	3	2		2		3	
8	4	3	2		3		4	
9	4	4	3		3		6	
10	4	4	5				4	

	180	181	182	183	184	185	186	188
EPI	2	3						
4								
6								
7								
8								
9								
10								

	189	193	194	195	196	201	202	203
EPI			3					
4			2					
6			4					
7			4					
8			6					
9			3					
10			3					

	204	207	208	210	215	217	222	224
EPI		4			3		2	
4							2	
6							2	
7							3	
8							4	
9							4	
10							5	

	225	229	231	232	236	238	243	245
EPI		5	2		3	2	12	3
4								
6								
7								
8								
9								
10								

	250	252	257	259	264	266	271	273
EPI	2		2		3		2	
4	2							
6	2							
7	2							
8	3							
9	8							
10	5							

	278	280	285	287	292	298	348
EPI	3		5		3	5	4
4	3					6	3
6	3					4	3
7	3					4	3
8	3					4	3
9	3					3	3
10	3					3	5

LAKE 3025 Susp P (ug/L) 1982

DEPTH(m) DAY #

	012	040	068	124	138	152	166	173
EPI	2	6	3	6	5	3	4	5
4	2	4	3		6		4	
6	3	6	3		5		6	
7	4	7	3		5		10	
8	5	7	6		5		12	
9	11	23	19		9		17	
10	25	33	31				26	

	180	181	182	183	184	185	186	188
EPI	3							
4								
6								
7								
8								
9								
10								

	189	193	194	195	196	201	202	203
EPI			3					
4			4					
6			4					
7			8					
8			24					
9			24					
10			32					

	204	207	208	210	215	217	222	224
EPI		3					4	
4							3	
6							4	
7							8	
8							10	
9							31	
10							24	

	225	229	231	232	236	238	243	245
EPI		4			3		2	
4								
6								
7								
8								
9								
10								

	250	252	257	259	264	266	271	273
EPI	3		3		3		5	
4	4							
6	3							
7	3							
8	6							
9	30							
10	54							

	278	280	285	287	292	298	348
EPI	4		4		4	6	5
4	5					7	7
6	4					6	4
7	6					6	4
8	5					7	5
9	4					10	9
10	4					6	12

LAKE 3D2S DIC (uM/L) 198?

DEPTH(m) DAY #

	012	040	068	124	138	152	166	17
EPI	110	113	121	141	88	75	63	5
4	121	154	189		113		62	
6	179	238	247		224		160	
7	236	342	366		241		244	
8	298	403	329		282		339	
9	381	434	347		428		406	
10	575	666	622				444	

	180	181	182	183	184	185	186	188
EPI	58	54						41
4								
6								
7								
8								
9								
10								

	189	193	194	195	196	201	202	203
EPI	47		45					38
4			49					
6			106					
7			170					
8			324					
9			438					
10			505					

	204	207	208	210	215	217	222	224
EPI		35		36	37	33	57	36
4							42	
6							51	
7							236	
8							368	
9							519	
10							721	

	225	229	231	232	236	238	243	245
EPI		32	28		37	30	40	49
4								
6								
7								
8								
9								
10								

	250	252	257	259	264	266	271	273
EPI	51	47	46	49	48	36	43	38
4	48							
6	48							
7	46							
8	240							
9	504							
10	833							

	278	280	285	287	292	298	348
EPI	37	38	42	40	41	43	83
4	38					38	77
6	37					39	79
7	38					42	81
8	39					48	87
9	38					44	87
10	37					40	270

LAKE 3025 DOC (uM/L) 1982

DEPTH(m) DAY #

	012	040	068	124	138	152	166	173
EPI	510	960	940	1180	560	1220	680	590
4	800	630	670		560		690	
6	1010	420	460		610		610	
7	1110	600	890		500		1350	
8	810	680	950		670		460	
9	580	430	1310		480		590	
10	360	580	760				650	

	180	181	182	183	184	185	186	188
EPI	660							
4								
6								
7								
8								
9								
10								

	189	193	194	195	196	201	202	203
EPI			730					
4			480					
6			830					
7			1150					
8			900					
9			1240					
10			750					

	204	207	208	210	215	217	222	224
EPI		460			850		460	
4							1330	
6							820	
7							590	
8							630	
9							770	
10							520	

	225	229	231	232	236	238	243	245
EPI		920			420		530	
4								
6								
7								
8								
9								
10								

	250	252	257	259	264	266	271	273
EPI	390		440		680		400	
4	450							
6	440							
7	440							
8	490							
9	440							
10	450							

	278	280	285	287	292	298	348
EPI	410		440		440	480	650
4	490					470	510
6	420					450	710
7	500					430	580
8	440					430	580
9	460					510	600
10	460					480	1090

LAKE 302S Susp C (ug/L) 1982

DEPTH(m) DAY #

	012	040	068	124	138	152	166	173
EPI	520	510	530	680	550	530	570	590
4	570	380	440		610		620	
6	510	490	310		580		860	
7	570	600	360		580		980	
8	930	580	1210		930		920	
9	1560	1430	960		1030		1140	
10	2820	1810	1440				1390	

	180	181	182	183	184	185	186	188
EPI	810							
4								
6								
7								
8								
9								
10								

	189	193	194	195	196	201	202	203
EPI			590					
4			540					
6			610					
7			810					
8			3080					
9			1840					
10			1930					

	204	207	208	210	215	217	222	224
EPI		590					620	
4							610	
6							640	
7							1350	
8							1270	
9							2210	
10							3380	

	225	229	231	232	236	238	243	245
EPI		510			460		620	
4								
6								
7								
8								
9								
10								

	250	252	257	259	264	266	271	273
EPI	670		570		830		550	
4	680							
6	660							
7	620							
8	920							
9	2210							
10	4420							

	278	280	285	287	292	298	348
EPI	700		690		570	670	470
4	730					760	460
6	700					650	370
7	760					720	380
8	820					700	390
9	650					800	410
10	740					860	690

LAKE 302S Cl (mg/L) 1982

DEPTH(m) DAY #

	012	040	068	124	138	152	166	173
EPI	1.5	1.7	2.0	1.4	1.5	1.5	2.5	3.0
4	1.5	1.8	1.9		1.4		1.5	
6	1.5	1.7	1.9		1.6		1.6	
7	1.5	1.7	1.9		1.8		1.7	
8	1.5	1.7	2.0		1.6		1.6	
9	1.5	1.7	1.9		1.6		1.6	
10	1.5	1.7	1.8				1.6	

	180	181	182	183	184	185	186	188
EPI	1.4	1.3	1.3				1.3	1.4
4								
6								
7								
8								
9								
10								

	189	193	194	195	196	201	202	203
EPI	1.6		1.4	1.4				1.3
4			1.5					
6			1.5					
7			1.7					
8			1.7					
9			1.6					
10			1.6					

	204	207	208	210	215	217	222	224
EPI		1.3	1.3	1.3	1.5	1.3	1.5	1.4
4							1.4	
6							1.5	
7							1.6	
8							1.6	
9							1.6	
10							1.6	

	225	229	231	232	236	238	243	245
EPI	1.5	7.8	1.3	1.4	1.3	1.3	1.4	1.4
4								
6								
7								
8								
9								
10								

	250	252	257	259	264	266	271	273
EPI	1.5	1.3	1.4	1.5	1.2	.6	1.3	1.4
4	1.6							
6	1.5							
7	1.9							
8	1.6							
9	1.6							
10	1.6							

	278	280	285	287	292	298	348
EPI	1.4	1.4	1.4	1.5	1.2	1.2	1.3
4	1.4					1.3	1.3
6	1.4					1.3	1.3
7	1.4					1.3	1.3
8	1.4					1.3	1.3
9	1.4					1.4	1.4
10	1.5					1.4	1.3

LAKE 302S 304 (mg/L) 1982

DEPTH(m) DAY #

	012	040	068	124	138	152	166	173
EPI	3.4	3.3	3.2	3.2	2.9	3.0	3.1	3.4
4	3.2	3.2	2.9		3.0		3.1	
6	3.2	3.1	2.8		2.9		2.9	
7	3.1	2.7	2.7		2.9		2.9	
8	3.0	2.6	2.5		2.8		2.7	
9	2.8	2.9	2.8		2.6		2.7	
10	2.2	1.7	1.4				2.6	

	180	181	182	183	184	185	186	188
EPI	3.0	4.1	4.3	4.2	4.2	4.1	4.2	4.8
4								
6								
7								
8								
9								
10								

	189	193	194	195	196	201	202	203
EPI	4.8		5.1	5.4				5.4
4			4.9					
6			3.2					
7			2.8					
8			2.7					
9			2.5					
10			2.3					

	204	207	208	210	215	217	222	224
EPI		5.1	5.3	5.3	5.3	5.3	5.2	5.5
4							5.2	
6							4.9	
7							3.1	
8							2.7	
9							2.4	
10							2.0	

	225	229	231	232	236	238	243	245
EPI	5.4	5.1	5.5	5.5	5.5	5.4	5.3	5.9
4								
6								
7								
8								
9								
10								

	250	252	257	259	264	266	271	273
EPI	5.6	6.5	6.2	6.1	6.2	7.3	6.2	6.3
4	5.8							
6	5.6							
7	5.7							
8	4.4							
9	2.6							
10	2.0							

	278	280	285	287	292	298	348
EPI	6.3	6.2	6.3	6.1	6.4	6.1	6.5
4	6.2					6.2	6.5
6	6.2					6.2	6.5
7	6.3					6.1	6.5
8	6.3					6.2	6.5
9	6.3					6.1	7.1
10	6.2					6.1	5.5

LAKE 3025 N25-S (mg/L) 1982

DEPTH(m) DAY #

	012	040	068	124	138	152	166	173
EPI								
4								
6	< .01	< .01	< .01		< .01		< .01	
7	< .01	< .01	< .01		< .01		< .01	
8	< .01	< .01	< .01		< .01		< .01	
9	< .01	< .01	< .01		< .01		< .01	
10	.02	.10	.16				< .01	

	180	181	182	183	184	185	186	188
EPI								
4								
6								
7								
8								
9								
10								

	189	193	194	195	196	201	202	203
EPI								
4								
6			< .01					
7			< .01					
8			< .01					
9			< .01					
10			< .01					

	204	207	208	210	215	217	222	224
EPI								
4								
6								
7							< .01	
8							< .01	
9							< .01	
10							.02	

	225	229	231	232	236	238	243	245
EPI								
4								
6								
7								
8								
9								
10								

	250	252	257	259	264	266	271	273
EPI								
4								
6	< .01							
7	< .01							
8	< .01							
9	< .01							
10	< .01							

	278	280	285	287	292	298	348
EPI							
4							
6	.02					< .01	
7	.02					< .01	< .01
8	.02					< .01	< .01
9	< .01					< .01	< .01
10	.02					< .01	< .01

LAKE 302S Na (mg/L) 1982

DEPTH(m) DAY #

	012	040	068	124	138	152	166	173
EPI	.82	.87	.97	.87	.83		.79	.94
4	.84	1.03	.93		.83		.77	
6	.82	.83	.98		.89		.80	
7	.82	.85	1.01		.86		.82	
8	.82	.86	1.05		.90		.82	
9	.82	.89	1.02		.85		.99	
10	.82	.85	.97				.82	

	180	181	182	183	184	185	186	188
EPI	.80							
4								
6								
7								
8								
9								
10								

	189	193	194	195	196	201	202	203
EPI			.76					
4			.80					
6			.73					
7			.78					
8			.87					
9			.81					
10			.78					

	204	207	208	210	215	217	222	224
EPI		.86			.90		.85	
4							.86	
6							.86	
7							.89	
8							.89	
9							.91	
10							.94	

	225	229	231	232	236	238	243	245
EPI		.85			.71		.82	
4								
6								
7								
8								
9								
10								

	250	252	257	259	264	266	271	273
EPI	.87		.85		.77		.85	
4	.78							
6	.78							
7	.79							
8	.85							
9	.88							
10	.84							

	278	280	285	287	292	298	348
EPI	.82		.88		.86	.86	.78
4	.82					.86	.76
6	.85					.86	.80
7	.86					.86	.73
8	.85					.83	.73
9	.85					.85	.76
10	.85					.85	.70

LAKE 302S K (mg/L) 1982

DEPTH(m) DAY #

	012	040	068	124	138	152	166	173
EPI	.49	.46	.46	.52	.48		.40	.40
4	.49	.55	.44		.52		.40	
6	.49	.42	.44		.52		.40	
7	.49	.44	.44		.52		.41	
8	.53	.44	.48		.54		.41	
9	.53	.46	.46		.54		.43	
10	.55	.50	.52				.40	

	180	181	182	183	184	185	186	188
EPI	.38							
4								
6								
7								
8								
9								
10								

	189	193	194	195	196	201	202	203
EPI			.42					
4			.44					
6			.42					
7			.44					
8			.48					
9			.48					
10			.50					

	204	207	208	210	215	217	222	224
EPI		.40			.42		.36	
4							.38	
6							.36	
7							.38	
8							.40	
9							.46	
10							.50	

	225	229	231	232	236	238	243	245
EPI		.39			.39		.43	
4								
6								
7								
8								
9								
10								

	250	252	257	259	264	266	271	273
EPI	.47		.43		.42		.42	
4	.45							
6	.43							
7	.45							
8	.51							
9	.57							
10	.62							

	278	280	285	287	292	298	348
EPI	.38		.38		.33	.33	.37
4	.38					.33	.37
6	.40					.38	.39
7	.38					.35	.37
8	.40					.33	.37
9	.40					.35	.39
10	.40					.35	.35

LAKE 3025 Ca (mg/L) 1982

DEPTH(m) DAY #

	012	040	068	124	138	152	166	173
EPI	1.86	1.81	1.93	1.89	1.77		1.88	1.79
4	1.78	1.89	1.77		1.81		1.83	
6	1.86	1.85	1.81		1.89		1.92	
7	1.90	1.97	1.85		1.93		2.02	
8	1.90	1.77	1.65		1.93		2.02	
9	1.65	1.33	1.25		2.16		2.02	
10	2.49	3.63	3.99				2.06	

	180	181	182	183	184	185	186	188
EPI	1.92							
4								
6								
7								
8								
9								
10								

	189	193	194	195	196	201	202	203
EPI			1.81					
4			1.77					
6			1.81					
7			1.93					
8			2.05					
9			1.73					
10			2.09					

	204	207	208	210	215	217	222	224
EPI		1.81			1.85		1.81	
4							2.22	
6							1.72	
7							2.08	
8							1.90	
9							1.67	
10							3.12	

	225	229	231	232	236	238	243	245
EPI		1.78			1.87		1.77	
4								
6								
7								
8								
9								
10								

	250	252	257	259	264	266	271	273
EPI	1.77		1.81		1.86		1.81	
4	2.00							
6	1.81							
7	1.86							
8	1.91							
9	1.49							
10	4.23							

	278	280	285	287	292	298	348
EPI	1.90		1.90		1.99	1.94	2.41
4	1.90					1.99	2.46
6	1.94					1.94	2.30
7	1.99					1.94	2.24
8	1.94					1.90	2.13
9	1.90					1.94	2.24
10	2.13					2.04	2.02

LAKE 302S Mg (mg/L) 1982

DEPTH(m) DAY #

	012	040	068	124	138	152	166	173
EPI	.72	.69	.75	.67	.67		.61	.61
4	.69	.72	.67		.67		.61	
6	.71	.72	.72		.66		.66	
7	.73	.74	.72		.71		.67	
8	.72	.73	.74		.72		.67	
9	.73	.74	.74		.66		.65	
10	.73	.75	.76				.65	

	180	181	182	183	184	185	186	188
EPI	.63							
4								
6								
7								
8								
9								
10								

	189	193	194	195	196	201	202	203
EPI			.57					
4			.61					
6			.60					
7			.57					
8			.66					
9			.66					
10			.66					

	204	207	208	210	215	217	222	224
EPI		.64			.64		.63	
4							.61	
6							.61	
7							.65	
8							.68	
9							.68	
10							.69	

	225	229	231	232	236	238	243	245
EPI		.58			.63		.58	
4								
6								
7								
8								
9								
10								

	250	252	257	259	264	266	271	273
EPI	.60		.58		.63		.61	
4	.60							
6	.60							
7	.60							
8	.64							
9	.70							
10	.72							

	278	280	285	287	292	298	348
EPI	.62		.64		.68	.65	.71
4	.63					.65	.69
6	.65					.65	.72
7	.65					.65	.70
8	.64					.65	.68
9	.65					.65	.71
10	.67					.65	.62

LAKE 302S Mn (mg/L) 1982

DEPTH(m) DAY #

	012	040	068	124	138	152	166	173
EPI	< .02	.01	.01	.06	.03		< .01	.15
4	< .02	.01	.01		.03		< .01	
6	< .02	.02	.05		.04		.01	
7	.02	.12	.09		.03		.03	
8	.07	.22	.19		.09		.04	
9	.15	.30	.29		.19		.28	
10	.36	.73	.70				.04	

	180	181	182	183	184	185	186	188
EPI	< .01							
4								
6								
7								
8								
9								
10								

	189	193	194	195	196	201	202	203
EPI			< .02					
4			.03					
6			.02					
7			.05					
8			.20					
9			.42					
10			.45					

	204	207	208	210	215	217	222	224
EPI		.03			< .01		< .01	
4							< .01	
6							< .01	
7							.13	
8							.26	
9							.58	
10							.69	

	225	229	231	232	236	238	243	245
EPI		< .01			< .01		.03	
4								
6								
7								
8								
9								
10								

	250	252	257	259	264	266	271	273
EPI	.01		.01		.03		.03	
4	.01							
6	.01							
7	.01							
8	.16							
9	.87							
10	1.07							

	278	280	285	287	292	298	348
EPI	.04		.01		.01	.01	.10
4	.04					.01	.10
6	.04					.01	.12
7	.04					< .01	.10
8	.04					.01	.10
9	.03					.01	.12
10	.04					.01	.22

LAKE 3025 Fe (mg/L) 1982

DEPTH(m) DAY #

	012	040	068	124	138	152	166	173
EPI	.04	< .02	< .02	.11	.07		< .03	< .03
4	.04	< .02	< .02		.11		< .03	
6	.04	< .02	.05		.15		< .03	
7	.08	.12	.12		.15		.06	
8	.15	.32	.28		.22		.16	
9	.50	.60	.58		.52		.45	
10	1.85	4.62	5.08				.60	

	180	181	182	183	184	185	186	188
EPI	< .03							
4								
6								
7								
8								
9								
10								

	189	193	194	195	196	201	202	203
EPI			.04					
4			.04					
6			.04					
7			.08					
8			.19					
9			.38					
10			.42					

	204	207	208	210	215	217	222	224
EPI		.03			.03		.06	
4							.06	
6							.06	
7							.12	
8							.30	
9							.24	
10							.89	

	225	229	231	232	236	238	243	245
EPI		.03			.03		.08	
4								
6								
7								
8								
9								
10								

	250	252	257	259	264	266	271	273
EPI	.04		.04		.04		< .04	
4	.04							
6	.08							
7	.08							
8	.11							
9	.15							
10	1.17							

	278	280	285	287	292	298	348
EPI	.03		< .03		.03	< .03	.05
4	.03					< .03	.10
6	.03					< .03	.10
7	.03					< .03	.10
8	.03					< .03	.15
9	< .03					< .03	.10
10	< .03					< .03	.30

LAKE 302S Ferrous-Fe (mg/L) 198?

DEPTH(m)	DAY #							
	012	040	068	124	138	152	166	173
EPI	< .01	.01	.02		.01		.26	
4	< .01	< .01	< .01		< .01		.09	
6	.01	< .01	< .01		.01		.02	
7	.01	< .01	< .01		.01		.03	
8	.03	< .01	< .01		.01		.14	
9	.02	.06	.13		.03		.29	
10	.76	4.28	5.21				.18	

	180	181	182	183	184	185	186	188
EPI	< .01							
4								
6								
7								
8								
9								
10								

	189	193	194	195	196	201	202	203
EPI			.02					
4			.03					
6			< .01					
7			< .01					
8			.03					
9			.06					
10			.64					

	204	207	208	210	215	217	222	224
EPI							< .01	
4							< .01	
6							< .01	
7							< .01	
8							.05	
9							.07	
10							2.84	

	225	229	231	232	236	238	243	245
EPI								
4								
6								
7								
8								
9								
10								

	250	252	257	259	264	266	271	273
EPI	< .01							
4	< .01							
6	< .01							
7	< .01							
8	< .01							
9	.02							
10	2.99							

	278	280	285	287	292	298	348
EPI	< .01					< .01	< .01
4	< .01					< .01	< .01
6	< .01					< .01	< .01
7	< .01					< .01	< .01
8	< .01					< .01	.01
9	< .01					< .01	< .01
10	< .01					< .01	.02

LAKE 3025 Susp Fe (ug/L) 1982

DEPTH(m) DAY #

	012	040	068	124	138	152	166	173
EPI	15	14	17		65		24	
4	21	43	37		76		23	
6	37	29	93		119		62	
7	85	161	142		123		122	
8	173	363	291		198		167	
9	515	666	703		439		501	
10	1751	335	279				1370	

	180	181	182	183	184	185	186	188
EPI	17							
4								
6								
7								
8								
9								
10								

	189	193	194	195	196	201	202	203
EPI			22					
4			22					
6			47					
7			164					
8			456					
9			1065					
10			1991					

	204	207	208	210	215	217	222	224
EPI							25	
4							25	
6							41	
7							184	
8							411	
9							1625	
10							4862	

	225	229	231	232	236	238	243	245
EPI								
4								
6								
7								
8								
9								
10								

	250	252	257	259	264	266	271	273
EPI	44							
4	41							
6	42							
7	44							
8	198							
9	1528							
10	6590							

	278	280	285	287	292	298	348
EPI	97					63	41
4	100					57	36
6	97					58	31
7	121					51	32
8	98					70	39
9	98					65	39
10	127					109	301

LAKE 3025 SRSi (mg/L) 1982

DEPTH(m) DAY #

	012	040	068	124	138	152	166	173
EPI	.117	.112	.113	.395	.378	.379	.319	.186
4	.139	.161	.238		.407		.321	
6	.247	.306	.353		.424		.219	
7	.403	.522	.443		.439		.297	
8	.539	.666	.598		.583		.437	
9	.747	.752	.728		.883		.609	
10	1.050	1.120	1.200				.729	

	180	181	182	183	184	185	186	188
EPI	.234							
4								
6								
7								
8								
9								
10								

	189	193	194	195	196	201	202	203
EPI			.286					
4			.291					
6			.151					
7			.082					
8			.112					
9			.379					
10			.507					

	204	207	208	210	215	217	222	224
EPI		.296					.263	
4							.259	
6							.247	
7							.012	
8							.035	
9							.302	
10							.652	

	225	229	231	232	236	238	243	245
EPI		.203			.168		.158	
4								
6								
7								
8								
9								
10								

	250	252	257	259	264	266	271	273
EPI	.148		.132		.119		.127	
4	.146							
6	.146							
7	.147							
8	.095							
9	.358							
10	.834							

	278	280	285	287	292	298	348
EPI	.155		.215		.235	.231	.309
4	.154					.232	.304
6	.155					.233	.306
7	.155					.209	.306
8	.157					.246	.327
9	.153					.245	.326
10	.155					.201	.736

LAKE 3025 Chl-a (ug/L) 1982

DEPTH(m)	DAY #							
	012	040	068	124	138	152	166	173
EPI	1.6	2.1	1.0	1.8	1.6	1.2	2.8	1.9
4	1.1	.9	.6		2.3		2.6	
6	1.7	.7	.6		3.0		9.6	
7	1.2	.8	.6		2.6		14.4	
8	1.7	1.2	.8		2.7		11.7	
9	2.4	2.7	2.5		2.5		12.0	
10	5.2	25.5	10.2				18.8	

	180	181	182	183	184	185	186	188
EPI	2.5							
4								
6								
7								
8								
9								
10								

	189	193	194	195	196	201	202	203
EPI			2.8					
4			2.7					
6			1.2					
7			10.4					
8			85.3					
9			34.9					
10			39.1					

	204	207	208	210	215	217	222	224
EPI		1.9					3.7	
4							3.2	
6							4.5	
7							17.8	
8							17.1	
9							48.0	
10							78.6	

	225	229	231	232	236	238	243	245
EPI		3.1			3.9		3.8	
4								
6								
7								
8								
9								
10								

	250	252	257	259	264	266	271	273
EPI	3.7		4.7		5.2		7.2	
4	3.8							
6	3.2							
7	1.9							
8	5.8							
9	55.7							
10	214.2							

	278	280	285	287	292	298	348	
EPI	7.8		9.3		6.7	4.9	3.8	
4	9.0					5.0	4.2	
6	10.0					5.2	3.5	
7	10.2					5.4	3.6	
8	8.8					6.4	3.4	
9	10.3					7.3	4.8	
10	9.9					7.5	4.9	

LAKE 3D25 Colour (abs425nm) 1982

DEPTH(m) DAY #

	012	040	068	124	138	152	166	173
EPI		.031	.039				.036	
4		.032	.042				.039	
6		.045	.064		.050		.038	
7		.084	.080		.043		.040	
8		.137	.125		.053		.050	
9		.229	.206		.089		.086	
10		.228	.242				.121	

	180	181	182	183	184	185	186	188
EPI	.028							
4								
6								
7								
8								
9								
10								

	189	193	194	195	196	201	202	203
EPI			.047					
4			.043					
6			.053					
7			.056					
8			.095					
9			.108					
10			.131					

	204	207	208	210	215	217	222	224
EPI							.037	
4							.034	
6							.035	
7							.050	
8							.069	
9							.081	
10							.150	

	225	229	231	232	236	238	243	245
EPI								
4								
6								
7								
8								
9								
10								

	250	252	257	259	264	266	271	273
EPI	.039							
4	.041							
6	.037							
7	.043							
8	.053							
9	.080							
10	.301							

	278	280	285	287	292	298	348
EPI	.040					.031	.028
4	.033					.027	.027
6	.033					.026	.030
7	.031					.036	.028
8	.032					.024	.026
9	.042					.028	.030
10	.031					.030	.052

Appendix 26

Lake 302 south basin 1983 water chemistry data

LAKE 3025 Temp (C) 1983

DEPTH(m)	DAY #							
	011	046	074	123	129	137	144	151
EPI					7.40			
4					7.00			
6					6.30			
7					6.10			
8					5.90			
9					5.60			
10					5.50			

	158	165	172	179	186	193	200	207
EPI		18.40				20.50		
4		15.20				19.75		
6		13.50				15.90		
7		11.50				13.75		
8		10.20				11.10		
9		9.70				9.65		
10		9.40				9.00		

	214	221	228	235	242	249	256	263
EPI		24.10				21.10		
4		24.20				21.30		
6		21.00				21.30		
7		17.00				18.50		
8		13.60				14.10		
9		11.00				11.20		
10		10.30				10.30		

	270	277	284	298	347
EPI		11.90			
4		11.90			
6		11.90			
7		11.80			
8		11.80			
9		11.70			
10		11.60			

LAKE 3025 Cond (uS/cm) 1983

DEPTH(m)	DAY #							
	011	046	074	123	129	137	144	151
EPI	30	29	30	26	27	26	26	26
4	29	29	29		28			
6	29	29	30		28			
7	29	30	30		27			
8	29	30	30		27			
9	30	30	31		27			
10		55	57		27			

	158	165	172	179	186	193	200	207
EPI	26	26	27	27	28	27	28	27
4		27				27		
6		26				26		
7		25				26		
8		26				28		
9		30				32		
10		31				35		

	214	221	228	235	242	249	256	263
EPI	27	27	27	27	32	28	29	32
4		27				27		
6		27				27		
7		27				28		
8		29				30		
9		32				50		
10		44				81		

	270	277	284	298	347
EPI	28	27	36	29	35
4		26			29
6		26			29
7		26			30
8		25			30
9		25			32
10		25			32

LAKE 3025 pH 1983

DEPTH(m)	DAY #							
	011	046	074	123	129	137	144	151
EPI	5.92	5.63	5.65	5.63	5.83	5.85	6.08	6.24
4	5.85	5.54	5.35		5.81			
6	5.81	5.47	5.38		5.76			
7	5.79	5.28	5.31		5.72			
8	5.74	5.25	5.31		5.68			
9	5.78	5.41	5.51		5.68			
10		6.27	6.30		5.73			

	158	165	172	179	186	193	200	207
EPI	6.24	6.19	5.87	6.06	6.05	5.60	5.62	5.77
4		6.10				5.63		
6		6.10				6.20		
7		5.98				6.11		
8		5.84				6.00		
9		5.80				5.82		
10		5.81				5.91		

	214	221	228	235	242	249	256	263
EPI	5.95	5.83	5.90	5.95	5.78	5.76	6.28	5.93
4		5.79				5.90		
6		5.84				5.87		
7		6.02				5.90		
8		5.70				5.58		
9		5.67				6.05		
10		5.83				6.27		

	270	277	284	298	347
EPI	6.05	5.96	5.95	5.76	5.68
4		5.89			5.64
6		5.91			5.54
7		5.90			5.57
8		5.90			5.58
9		5.90			5.61
10		5.89			5.63

LAKE 3025 Alkal (uEq/L) 1983

DEPTH(m)	DAY #							
	011	046	074	123	129	137	144	151
EPI	26	25	25	26	29	29	27	23
4	30	27	20		28			
6	32	27	24		29			
7	36	39	25		29			
8	40		22		30			
9	49		59		31			
10		460	437		33			

	158	165	172	179	186	193	200	207
EPI	22	16	14	15	14	5	7	8
4		15				8		
6		20				23		
7		31				46		
8		41				76		
9		78				95		
10		98				145		

	214	221	228	235	242	249	256	263
EPI	12	9	13	15	13	12	15	14
4		8				6		
6		9				10		
7		72				18		
8		93				92		
9		113				307		
10		250				567		

	270	277	284	298	347
EPI	13	10	4	7	13
4		12			11
6		13			18
7		12			34
8		12			49
9		13			70
10		11			80

LAKE 302S O2 (mg/L) 1983

DEPTH(m) DAY #

	011	046	074	123	129	137	144	151
EPI	9.56	8.26	9.16		8.75			
4	9.39	8.51	6.33		8.63			
6	8.27	6.62	4.01		8.07			
7	6.23	3.26	2.15		7.68			
8	3.99	2.10	1.92		7.31			
9	3.70	.39	.24		6.89			
10		< .01	< .01		6.85			

	158	165	172	179	186	193	200	207
EPI		9.41				8.15		
4		9.66				8.27		
6		9.97				9.78		
7		8.98				9.20		
8		8.54				6.16		
9		3.03				.83		
10		.61				.73		

	214	221	228	235	242	249	256	263
EPI		7.76				7.77		
4		7.79				8.08		
6		7.84				8.41		
7		8.46				7.83		
8		1.19				< .01		
9		.11				< .01		
10		< .01				< .01		

	270	277	284	298	347
EPI		9.52			12.28
4		9.83			11.29
6		10.85			9.90
7		8.91			7.88
8		9.48			5.62
9		9.29			2.85
10		9.36			1.32

LAKE 302S NH3-N (ug/L) 1983

DEPTH(m) DAY #

	011	046	074	123	129	137	144	151
EPI	98	66	85		42	36	123	33
4	102	104	36		35			
6	128	93	39		42			
7	181	52	50		32			
8	256	60	39		35			
9	268	198	188		44			
10		1120	1170		56			

	158	165	172	179	186	193	200	207
EPI	64	17	35	11	9	19	28	13
4		21				53		
6		16				24		
7		35				156		
8		89				39		
9		323				369		
10		462				687		

	214	221	228	235	242	249	256	263
EPI	29	31	7	25	28	20	9	13
4		22				6		
6		48				2		
7		35				6		
8		42				11		
9		378				696		
10		1131				1920		

	270	277	284	298	347
EPI	15	1	15	16	33
4		6			34
6		3			65
7		3			164
8		12			253
9		2			375
10		10			483

LAKE 3025 NO2-N (ug/L) 1983

DEPTH(m)	DAY #													
	011		046		074		123		129		137		144		151	
EPI	<	1		16		2			<	1	<	1	<	1	<	1
4	<	1		18	<	1			<	1						
6		15		27	<	1			<	1						
7		83		125	<	1			<	1						
8		52		171	<	1			<	1						
9		47		145		41			<	1						
10			<	1	<	1			<	1						

	158		165		172		179		186		193		200		207	
EPI	<	1	<	1	<	1			<	1	<	1			<	1
4			<	1							<	1				
6			<	1							<	1				
7			<	1							<	1				
8			<	1							<	1				
9			<	1							<	1				
10			<	1							<	1				

	214		221		228		235		242		249		256		263	
EPI	<	1	<	1			<	1	<	1	<	1	<	1	<	1
4			<	1							<	1				
6			<	1							<	1				
7			<	1							<	1				
8			<	1							<	1				
9			<	1							<	1				
10			<	1							<	1				

	270		277		284		298		347	
EPI	<	1	<	1	<	1	<	1	<	1
4			<	1					<	1
6			<	1					<	1
7			<	1						2
8			<	1						3
9			<	1						4
10			<	1						4

LAKE 3025 NO3-N (ug/L) 1983

DEPTH(m)	DAY #									
	011	046	074	123	129	137	144	151		
EPI	10	18	16		109	98	94	71		
4	16	26	117		113					
6	10	35	189		115					
7	21	170	261		97					
8	30	191	274		103					
9	23	77	131		105					
10		2	2		105					

	158	165	172	179	186	193	200	207
EPI	70	45	34	17	< 1	39	4	< 1
4		47				113		
6		50				77		
7		51				179		
8		53				48		
9		36				34		
10		21				28		

	214	221	228	235	242	249	256	263
EPI	1	< 1	< 1	1	< 1	3	2	< 1
4		1				< 1		
6		1				< 1		
7		< 1				< 1		
8		< 1				2		
9		2				2		
10		2				2		

	270	277	284	298	347
EPI	1	1	5	1	4
4		1			4
6		2			7
7		1			7
8		4			5
9		1			5
10		1			6

LAKE 302S TDN (ug/L) 1983

DEPTH(m) DAY #

	011	046	074	123	129	137	144	151
EPI	396	392	359		338	382	364	290
4	374	401	376		317			
6	396	392	426		322			
7	493	519	482		332			
8	591	577	477		324			
9	648	660	561		351			
10		1410	1590		357			

	158	165	172	179	186	193	200	207
EPI	307	268	283	273	229	241	248	261
4		279				245		
6		346				252		
7		307				389		
8		395				257		
9		717				611		
10		791				962		

	214	221	228	235	242	249	256	263
EPI	265	256	281	247	249	244	229	262
4		252				237		
6		276				241		
7		314				282		
8		329				276		
9		651				1038		
10		1503				2415		

	270	277	284	298	347
EPI	227	213	231	258	256
4		229			260
6		225			304
7		241			422
8		248			513
9		256			653
10		230			805

LAKE 302S Susp N (ug/L) 1983

DEPTH(m) DAY #

	011	046	074	123	129	137	144	151
EPI	35	406	35		246	31	41	35
4	30	29	25		62			
6	33	26	25		38			
7	25	29	30		54			
8	40	55	45		43			
9	45	68	73		43			
10		231	160		62			

	158	165	172	179	186	193	200	207
EPI	59	34	52	32	39	39	29	19
4		28				46		
6		41				75		
7		44				128		
8		84				105		
9		162				259		
10		390				344		

	214	221	228	235	242	249	256	263
EPI	48	44	54	46	54	80	88	98
4		47				80		
6		50				82		
7		164				96		
8		143				237		
9		210				192		
10		499				252		

	270	277	284	298	347
EPI	50	85	126	66	52
4		96			54
6		87			88
7		78			59
8		81			81
9		74			104
10		94			276

LAKE 302S TDP (ug/L) 1983

DEPTH(m)	DAY #							
	011	046	074	123	129	137	144	151
EPI	4	3	3		3	6	3	4
4	5	4	5		3			
6	5	3	4		2			
7	4	4	5		2			
8	5	4	4		4			
9	5	5	4		2			
10		7	6		2			

DEPTH(m)	DAY #							
	158	165	172	179	186	193	200	207
EPI	3	3	3	3	3	3	2	4
4		3				4		
6		3				4		
7		4				5		
8		4				5		
9		8				7		
10		9				10		

DEPTH(m)	DAY #							
	214	221	228	235	242	249	256	263
EPI	5	2	4	2	4	3	2	2
4		2				3		
6		4				2		
7		5				3		
8		3				5		
9		5				6		
10		7				8		

DEPTH(m)	DAY #							
	270	277	284	298	347			
EPI	3	2	2	2	3			
4		2			2			
6		2			3			
7		2			3			
8		2			3			
9		2			4			
10		2			7			

LAKE 302S Susp P (ug/L) 1983

DEPTH(m)	DAY #							
	011	046	074	123	129	137	144	151
EPI	9	6	< 1		5	3	29	5
4	14	9	2		4			
6	11	11	2		4			
7	13	9	3		6			
8	17	9	5		6			
9	11	15	13		7			
10		36	29		7			

DEPTH(m)	DAY #							
	158	165	172	179	186	193	200	207
EPI	2		4	2	3	3	6	3
4		5				3		
6		5				5		
7		8				10		
8		15				7		
9		24				24		
10		37				37		

DEPTH(m)	DAY #							
	214	221	228	235	242	249	256	263
EPI	4	9	9	2	2	4	5	4
4		7				3		
6		6				4		
7		16				4		
8		20				18		
9		26				19		
10		65				27		

DEPTH(m)	DAY #							
	270	277	284	298	347			
EPI	3	6	6	3	4			
4		5			3			
6		5			8			
7		5			6			
8		5			7			
9		6			10			
10		7			24			

LAKE 302S DIC (uM/L) 1983

DEPTH(m)	DAY #							
	011	046	074	123	129	137	144	151
EPI	143	154	147		123	73	51	38
4	120	155	186		125			
6	153	190	241		138			
7	143	264	285		143			
8	253	311	297		166			
9	273	358	373		165			
10		620	651		175			

	158	165	172	179	186	193	200	207
EPI	35	31	27	25	21	22	17	24
4		34				21		
6		42				32		
7		79				110		
8		137				222		
9		303				407		
10		394				546		

	214	221	228	235	242	249	256	263
EPI	23	28	29	35	23	19	36	34
4		28				26		
6		33				27		
7		164				26		
8		395				464		
9		520				769		
10		838				1190		

	270	277	284	298	347
EPI	21	45	28	28	44
4		41			43
6		41			91
7		42			149
8		42			222
9		40			309
10		40			358

LAKE 302S DOC (uM/L) 1983

DEPTH(m)	DAY #							
	011	046	074	123	129	137	144	151
EPI	770	640			400	410	430	420
4	530	510			430			
6	900	790			390			
7	520	540			470			
8	650	450			410			
9	870	410			410			
10		1490			400			

	158	165	172	179	186	193	200	207
EPI	430	410	790	390	430	350	360	400
4		370				370		
6		380				380		
7		550				430		
8		410				410		
9		380				400		
10		430				440		

	214	221	228	235	242	249	256	263
EPI	400	370	390	350	390	360	420	400
4		380				350		
6		380				350		
7		430				370		
8		440				400		
9		400				450		
10		480				640		

	270	277	284	298	347
EPI	370	360	370	380	340
4		360			340
6		360			330
7		370			340
8		360			320
9		360			320
10		350			330

LAKE 302S Susp C (ug/L) 1983

DEPTH(m)	DAY #							
	011	046	074	123	129	137	144	151
EPI	460	2530	480		1710	370	480	520
4	400	390	360		560			
6	410	270	380		510			
7	330	330	400		440			
8	490	760	540		430			
9	500	590	730		410			
10		1630	1190		520			

	158	165	172	179	186	193	200	207
EPI	570	380	330	350	420	370	320	420
4		310				420		
6		440				650		
7		420				990		
8		660				920		
9		1080				1650		
10		2080				2220		

	214	221	228	235	242	249	256	263
EPI	490	510	510	510	550	770	910	800
4		480				850		
6		480				840		
7		1570				870		
8		1200				1860		
9		1660				1400		
10		3730				1790		

	270	277	284	298	347
EPI	550	760	930	730	610
4		810			630
6		790			770
7		710			620
8		680			780
9		740			990
10		890			2460

LAKE 302S Cl (ug/L) 1983

DEPTH(m)	DAY #							
	011	046	074	123	129	137	144	151
EPI	1.3	1.4	1.3		.9	11.8	1.3	1.3
4	1.2	1.4	1.2		1.1			
6	1.2	1.3	1.3		.5			
7	1.2	1.3	1.3		.6			
8	1.2	1.2	1.3		.9			
9	1.3	1.2	1.3		.9			
10		1.2	1.3		1.0			

	158	165	172	179	186	193	200	207
EPI	4.8	1.3	1.2	1.3	1.7	1.1	1.0	1.0
4		1.2				1.1		
6		1.3				1.4		
7		1.7				1.2		
8		1.3				1.2		
9		3.3				1.2		
10		1.3				1.0		

	214	221	228	235	242	249	256	263
EPI	1.5	1.1	2.8	1.7	1.2	1.2	1.8	1.2
4		1.1				1.2		
6		1.2				1.1		
7		1.3				1.2		
8		1.3				1.3		
9		1.4				1.3		
10		1.3				1.3		

	270	277	284	298	347
EPI	1.2	1.0	1.1	1.1	1.2
4		1.1			1.2
6		1.0			1.5
7		1.1			1.1
8		1.1			1.2
9		1.2			1.2
10		1.1			1.2

LAKE 302S SO4 (mg/L) 1983

DEPTH(m)	DAY #							
	011	046	074	123	129	137	144	151
EPI	6.8	6.3	6.8		3.6	3.8	5.9	5.9
4	6.4	6.3	6.3		4.8			
6	6.3	6.3	6.1		2.2			
7	6.0	5.9	5.9		5.0			
8	5.8	5.7	5.8		4.2			
9	5.8	5.7	5.6		4.1			
10		3.6	3.3		4.4			

	158	165	172	179	186	193	200	207
EPI	6.0	6.1	6.6	6.6	6.5	7.3	7.3	7.4
4		6.2				6.8		
6		6.1				6.3		
7		5.6				4.2		
8		5.4				5.4		
9		4.8				4.5		
10		4.6				4.5		

	214	221	228	235	242	249	256	263
EPI	4.8	7.2	7.8	7.1	7.4	7.3	7.4	7.4
4		7.2				7.4		
6		7.2				7.4		
7		4.6				7.3		
8		4.3				5.2		
9		4.2				3.7		
10		3.1				2.5		

	270	277	284	298	347
EPI	7.6	7.6	7.6	8.0	8.7
4		7.7			8.3
6		7.7			8.4
7		7.7			7.5
8		7.7			7.1
9		7.8			6.6
10		7.6			6.3

LAKE 302S H2S-S (mg/L) 1983

DEPTH(m)	DAY #							
	011	046	074	123	129	137	144	151
EPI	< .01	< .01	< .01		< .01			
4	< .01	< .01	< .01		< .01			
6	< .01	< .01			< .01			
7	< .01	< .01	< .01		< .01			
8	< .01	< .01	< .01		< .01			
9	< .01	< .01	< .01		< .01			
10		.05	.29		.01			

	158	165	172	179	186	193	200	207
EPI								
4								
6		< .01				< .01		
7		< .01				< .01		
8		< .01				< .01		
9		< .01				< .01		
10		< .01				< .01		

	214	221	228	235	242	249	256	263
EPI								
4								
6		< .01				< .01		
7		< .01				< .01		
8		< .01				< .01		
9		< .01				.11		
10		.01				.04		

	270	277	284	298	347
EPI					< .01
4					< .01
6		< .01			< .01
7		< .01			< .01
8		< .01			< .01
9		< .01			< .01
10		< .01			< .01

LAKE 302S Na (mg/L) 1983

DEPTH(m)	DAY #							
	011	046	074	123	129	137	144	151
EPI	.78	.93	.88		.74	.78	.86	.81
4	.88	.91	1.49		.74			
6	.76	.93	.86		.73			
7	.76	.98	.81		.74			
8	.95	.88	.96		.74			
9	.80	1.03	.98		.71			
10		.86	.91		.83			

DEPTH(m)	DAY #							
	158	165	172	179	186	193	200	207
EPI	.78	.82	1.27	1.03	.92	.92	.96	.89
4		.87				.92		
6		.84				.94		
7		.89				1.09		
8		.85				.92		
9		.90				.94		
10		.91				.94		

DEPTH(m)	DAY #							
	214	221	228	235	242	249	256	263
EPI	.94	.91	.96	.96	.98	.94	1.01	.89
4		.89				.88		
6		.93				.89		
7		1.01				.94		
8		.94				.93		
9		.89				.91		
10		1.11				.91		

DEPTH(m)	DAY #							
	270	277	284	298	347			
EPI	.86	1.02	.94	.85	.93			
4		1.18			.85			
6		.92			.93			
7		1.09			.89			
8		.92			.89			
9		.86			.93			
10		.85			.89			

LAKE 302S K (mg/L) 1983

DEPTH(m)	DAY #							
	011	046	074	123	129	137	144	151
EPI	.41	.39	.37		.39	.43	.47	.37
4	.39	.35	.61		.39			
6	.37	.37	.37		.41			
7	.37	.41	.35		.41			
8	.43	.37	.37		.41			
9	.37	.37	.37		.39			
10		.39	.45		.43			

DEPTH(m)	DAY #							
	158	165	172	179	186	193	200	207
EPI	.32	.29	.40	.36	.36	.35	.43	.39
4		.26				.37		
6		.28				.35		
7		.28				.45		
8		.28				.37		
9		.32				.45		
10		.32				.51		

DEPTH(m)	DAY #							
	214	221	228	235	242	249	256	263
EPI	.45	.32	.34	.28	.30	.49	.47	.45
4		.32				.45		
6		.32				.43		
7		.40				.45		
8		.42				.59		
9		.44				.59		
10		.54				.64		

DEPTH(m)	DAY #							
	270	277	284	298	347			
EPI	.47	.44	.46	.42	.45			
4		.50			.43			
6		.48			.43			
7		.54			.45			
8		.40			.45			
9		.44			.47			
10		.42			.49			

LAKE 302S Ca (mg/L) 1983

DEPTH(m)	DAY #							
	011	046	074	123	129	137	144	151
EPI	2.52	2.30	2.19		1.93	1.83	1.76	2.00
4	2.41	2.08	2.24		1.79			
6	2.13	2.08	2.19		1.83			
7	2.08	2.13	2.19		1.88			
8	2.46	1.97	2.24		1.79			
9	2.24	2.13	2.30		1.83			
10		3.23	3.39		1.93			

	158	165	172	179	186	193	200	207
EPI	1.93	1.98	1.85	1.79	1.90	1.78	1.82	1.92
4		1.89				1.78		
6		1.98				1.78		
7		1.93				1.97		
8		1.89				1.82		
9		2.10				1.87		
10		1.98				2.55		

	214	221	228	235	242	249	256	263
EPI	1.97	1.81	1.86	1.95	1.91	2.07	1.80	1.89
4		2.00				2.02		
6		1.95				1.98		
7		2.24				1.84		
8		2.19				1.98		
9		1.95				2.56		
10		3.14				3.51		

	270	277	284	298	347
EPI	1.98	2.08	2.25	2.33	2.11
4		2.16			2.06
6		2.12			2.06
7		2.29			2.16
8		2.16			2.11
9		1.92			2.16
10		2.25			2.25

LAKE 302S Mg (mg/L) 1983

DEPTH(m)	DAY #							
	011	046	074	123	129	137	144	151
EPI	.70	.68	.68		.63	.61	.59	.64
4	.66	.63	.67		.61			
6	.67	.63	.67		.61			
7	.63	.62	.66		.63			
8	.68	.61	.66		.61			
9	.65	.62	.67		.61			
10		.67	.65		.60			

	158	165	172	179	186	193	200	207
EPI	.60	.62	.54	.56	.57	.58	.65	.61
4		.59				.59		
6		.62				.60		
7		.60				.63		
8		.58				.62		
9		.61				.70		
10		.57				.69		

	214	221	228	235	242	249	256	263
EPI	.64	.61	.63	.61	.66	.63	.62	.63
4		.64				.63		
6		.63				.63		
7		.66				.59		
8		.69				.69		
9		.68				.71		
10		.75				.74		

	270	277	284	298	347
EPI	.62	.63	.69	.69	.65
4		.66			.62
6		.65			.62
7		.64			.61
8		.66			.59
9		.62			.60
10		.62			.62

LAKE 3025 Mn (mg/L) 1983

DEPTH(m)	DAY #							
	011	046	074	123	129	137	144	151
EPI	.04	.04	.02		.06	.04	.05	.04
4	.06	.06	.04		.06			
6	.08	.08	.10		.06			
7	.10	.16	.12		.06			
8	.16	.18	.12		.06			
9	.16	.24	.18		.06			
10		.55	.43		.06			

	158	165	172	179	186	193	200	207
EPI	.04	.04	.03	.03	.03	.04	.04	.04
4		.04				.04		
6		.05				.04		
7		.07				.13		
8		.09				.10		
9		.14				.27		
10		.18				.31		

	214	221	228	235	242	249	256	263
EPI	.04	.04	.04	.03	.04	.04	.05	.05
4		.04				.04		
6		.04				.04		
7		< .01				.04		
8		.19				.68		
9		.41				.79		
10		.45				.73		

	270	277	284	298	347
EPI	.07	.07	.06	.07	.07
4		.07			.07
6		.06			.07
7		.07			.07
8		.07			.07
9		.06			.11
10		.06			.16

LAKE 3025 Fe (mg/L) 1983

DEPTH(m)	DAY #							
	011	046	074	123	129	137	144	151
EPI	< .05	.05	.05		.03	< .03	.03	.03
4	< .05	.05	.05		.03			
6	< .05	.05	.15		.03			
7	.10	.25	.20		< .03			
8	.15	.30	.30		.03			
9	.15	.55	.85		.03			
10		4.75	5.50		.03			

	158	165	172	179	186	193	200	207
EPI	< .03	.03	.08	.04	.04	.08	.04	.04
4		.03				.04		
6		.03				.08		
7		.06				.35		
8		.08				.16		
9		.47				.66		
10		.94				1.43		

	214	221	228	235	242	249	256	263
EPI	.04	.03	< .04	< .04	< .04	.04	.04	.04
4		< .04				< .04		
6		.04				.04		
7		.20				.04		
8		.53				.32		
9		.33				3.48		
10		3.33				7.08		

	270	277	284	298	347
EPI	.04	.04	< .04	.04	.34
4		.04			.04
6		.04			.04
7		.04			.08
8		.04			.23
9		.04			.53
10		.04			.72

LAKE 302S Ferrous-Fe (mg/L) 1983

DEPTH(m)	DAY #							
	011	046	074	123	129	137	144	151
EPI	.01	.01	.01		< .01			
4	< .01	< .01	< .01		< .01			
6	< .01	< .01	.01		< .01			
7	< .01	.01	.01		< .01			
8	.01	.02	.02		< .01			
9	.01	.09	.33		< .01			
10		5.82	6.11		< .01			

	158	165	172	179	186	193	200	207
EPI		< .01				< .01		
4		< .01				< .01		
6		< .01				< .01		
7		< .01				< .01		
8		< .01				.01		
9		.01				.06		
10		.08				.32		

	214	221	228	235	242	249	256	263
EPI		< .01				.01		
4		< .01				.01		
6		< .01				.01		
7		< .01				.01		
8		< .01				.13		
9		.04				3.98		
10		4.62				10.69		

	270	277	284	298	347
EPI		.01			.01
4		.01			< .01
6		.01			< .01
7		.01			.01
8		< .01			.01
9		.01			.03
10		.01			.04

LAKE 302S Susp Fe (ug/L) 1983

DEPTH(m)	DAY #							
	011	046	074	123	129	137	144	151
EPI	20	46	18		85			
4	28	20	48		81			
6	59	29	107		78			
7	120	141	187		74			
8	198	251	247		95			
9	231	512	601		119			
10		204	102		114			

	158	165	172	179	186	193	200	207
EPI						13		
4		26				19		
6		32				48		
7		62				210		
8		94				118		
9		302				1009		
10		760				2262		

	214	221	228	235	242	249	256	263
EPI						69		
4						60		
6						68		
7						57		
8						489		
9						187		
10						453		

	270	277	284	298	347
EPI		73			44
4		73			36
6		76			48
7		70			103
8		74			195
9		113			452
10		202			1108

LAKE 3025 SRSi (mg/L) 1983

DEPTH(m)	DAY #							
	011	046	074	123	129	137	144	151
EPI	.335	.372	.353		.083	.463	.448	.425
4	.354	.389	.438		.095			
6	.428	.437	.575		.054			
7	.561	.635	.665		.065			
8	.689	.718	.705		.095			
9	.726	.834	.870		.073			
10		1.200	1.400		.092			

	158	165	172	179	186	193	200	207
EPI	.399	.371	.392	.388	.375	.395	.336	.334
4		.435				.363		
6		.362				.250		
7		.316				.014		
8		.319				.038		
9		.428				.156		
10		.581				.599		

	214	221	228	235	242	249	256	263
EPI	.316	.322	.323	.337	.333	.347	.341	.332
4		.329				.347		
6		.322				.347		
7		.299				.348		
8		.197				.330		
9		.211				.565		
10		.920				1.300		

	270	277	284	298	347
EPI	.310	.310	.300	.298	.325
4		.310			.332
6		.310			.380
7		.311			.529
8		.311			.687
9		.309			.859
10		.311			.955

LAKE 3025 Chl-a (ug/L) 1983

DEPTH(m)	DAY #							
	011	046	074	123	129	137	144	151
EPI	2.9	.7	.5		1.1	1.1	1.3	1.2
4	1.7	.8	.5		.9			
6	2.3	.6	.5		1.3			
7	2.4	.7	.5		1.3			
8	2.7	.8	.7		1.6			
9	3.2	1.7	1.7		2.2			
10		15.9	12.0		1.7			

	158	165	172	179	186	193	200	207
EPI	1.1	.8	1.0	1.1	2.3	1.4	1.0	.9
4		1.0				1.5		
6		1.2				4.9		
7		1.8				12.9		
8		3.0				9.8		
9		8.9				18.1		
10		13.2				38.5		

	214	221	228	235	242	249	256	263
EPI	1.3	1.4	.8	3.0	3.2	3.7	5.0	3.7
4		1.6				3.1		
6		2.0				3.7		
7		13.7				3.9		
8		9.5				11.9		
9		15.8				7.9		
10		152.2				39.4		

	270	277	284	298	347
EPI	2.7	5.5	3.4	2.9	2.2
4		6.8			3.2
6		5.7			3.5
7		5.1			1.6
8		5.8			1.7
9		6.3			2.6
10		8.5			6.9

LAKE 3025 Colour (abs425nm) 1983

DEPTH(m)	DAY #							
	011	046	074	123	129	137	144	151
EPI	.029	.033	.051		.029			
4	.036	.046	.038		.031			
6	.035	.038	.043		.033			
7	.048	.051	.053		.031			
8	.061	.061	.062		.034			
9	.059	.098	.104		.032			
10		.123	.268		.035			

	158	165	172	179	186	193	200	207
EPI		.029				.026		
4		.038				.028		
6		.038				.036		
7		.051				.088		
8		.051				.049		
9		.109				.119		
10		.172				.220		

	214	221	228	235	242	249	256	263
EPI		.090				.032		
4		.004				.025		
6		.017				.027		
7		.043				.027		
8		.086				.077		
9		.042				.114		
10		.298				.399		

	270	277	284	298	347
EPI		.038			.024
4		.037			.024
6		.031			.026
7		.028			.029
8		.030			.045
9		.027			.081
10		.026			.100